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ABSTRACT

Criterion-referenced proficiency examinations have been prepared for entry level occupational therapists and entry level occupational therapy assistants. Item development was based on a task inventory solicited from occupational therapists throughout the country, with six occupational therapists reviewing test development. A small scale pilot test was administered to a total of 233 individuals and a pretest was later administered to 782 individuals including those employed in related fields and a comparison group of college freshman at 23 test sites around the country. Testing methodology and data results are presented, and three parallel forms of each examination resulted. Audiovisuals, simulators, and related materials were explored for the tests, with line drawings being chosen for use, and recommendations made for further research in this area. Problems encountered during the test development are discussed. Recommendations state that further external validation and associated test development should proceed before satisfactory performance standards can be established. Appended material takes up two-thirds of the document and includes: test blueprints, therapists tasks, assistant tasks, item writers packet, reviewers instructions, item writers, item reviewers, pretest site coordinators, final forms-difficulty levels, and American Occupational Therapy Association policies and procedures. (LH)

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Occupational Therapy Proficiency Examinations

FINAL REPORT

CONTRACT NO1-AH-34063

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Professional Examination Service

DEVELOPMENT OF

OCCUPATIONAL THERAPY

PROFICIENCY EXAMINATIONS

Therapist Level

Assistant Level

FINAL REPORT - CONTRACT NO. N01-AH-34063

PROFESSIONAL EXAMINATION SERVICE
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NEW YORK, N.Y. 10027

FOR

Department of Health Education and Welfare
Health Resources Administration
Bureau of Health Resources Development
Division of Associated Health Professions

January 31, 1975

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The development of these examinations is the second part of a three-phase program on development and administration of proficiency examinations for occupational therapy personnel. This phase of the program was conducted from July 1, 1973 to January 31, 1975.

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1.0 INTRODUCTION

1.1 BACKGROUND

The present group of Federal contracts for proficiency examinations has its basis in two laws; PL 91-519 and PL 92-603. The Division of Associated Health Professions, Health Resources Administration (DAHP, HRA) is empowered under PL 91-519, Title II, section 792 (c) (2) to "enter into contracts...for special projects relating to training or retraining of allied health personnel, including...(f) developing, demonstrating or evaluating techniques for appropriate recognition (including equivalency and proficiency testing mechanis of previously acquired training or experience." PL 92-603, section 1123, authorizes the Secretary to carry out a program designed to determine the proficiency of individuals (who do not otherwise meet the formal educational, professional membership, or other specific criteria established for determining the qualifications of particul health groups) to perform the duties and functions of those health groups. If any individual has been determined qualified, no perso or provider utilizing the services of such individual to perform such duties and functions shall be denied payment under Title XVII on the grounds that such individual is not qualified.

1.2 PURPOSE

In June, 1973, the DAHP awarded a contract to Professional Examina Service (PES) for the development of proficiency examinations for

entry level occupational therapists and entry level occupational therapy assistants. These examinations were to be based on detailed statements of knowledge and skills prepared by the American Occupational Therapy Association (AOTA), under contract NO1-AH-24172.

1.3 SCOPE OF WORK

In order to accomplish the goals stated above, PES contracted to:

- Establish an Advisory Committee which shall be available for advice and direction on all parts of the work under this contract. Members of this committee were to be a continuation of those serving under contract NO1-AH-24172, insofar as possible, and to include representatives of the following interests:

  - Institutions and organizations employing occupational therapy personnel, including Federal agencies and prepaid group practice.
  - Occupational therapy personnel -- therapists and assistants.
  - Specialists who utilize occupational therapy services, including internists, pediatricians, and psychiatrists.
  - Collegiate and vocational educators in occupational therapy.
  - Federal manpower regulatory agencies.
  - NIH Bureau of Health Manpower Education.

- Develop pools of test questions for each subject in the statements of knowledge and skills requirements related to job performance at each of the two levels. Validate the test questions and establish their reliability.

- Prepare three versions of the test (including one for norming) for each of the two levels. Each version was to contain 250 items and take approximately four hours. They were to be constructed and scored in such a manner that an individual taking the test can be advised of

his performance in specific knowledge and skills areas for the purpose of obtaining additional specific instruction and experience with which to obtain proficiency.

- Norm each test.

- Evaluate and make recommendations on the potential use of audiovisuals, simulators, and related material for proficiency testing in the field of occupational therapy.

1.4 METHODOLOGY

It was decided to utilize a criterion-referenced test approach to development of these examinations. The statements of knowledge and skills (hereinafter referred to as the "tasks" or "task inventory") were used as the basis for item development. Over 2,500 items were solicited from occupational therapy practitioners all over the United States. Six occupational therapists were employed by PES to provide consultation and to review every item received. A list of 150 experts in occupational therapy, provided by AOTA, was used to select three reviewers for every item. A pilot test and pretest were conducted on occupational therapists, assistants and other health groups in order to provide validation of both the items and the test approach. Based on the pretest results, three final versions at each of the two levels were developed. The Advisory Committee provided guidance and, in some cases, direct help, at each stage of activities.

2.0 TEST DEVELOPMENT

2.1 BLUEPRINT

The Task Inventory assembled by AOTA was reviewed by PES staff and consultants. In a criterion-referenced approach to test construction, the items must reflect the criterion behavior, or in this case, the task. The final examinations were to contain 250 items reflecting the tasks included in the Inventory, and a basic decision was made at the beginning of the contract to test as many of the tasks as possible. However, these tasks were for the most part complex tasks; that is, a given task generally contained more than one behavior. In addition, it became clear that the list of tasks for each level was entirely too long. It was not appropriate to attempt to reduce the task complexity as part of this contract, but the number of tasks had to be reduced if test development was to proceed. The task inventory had been subjected to a forced choice rating of task criticality as part of the earlier contract, and it was decided to utilize those ratings to select the most critical tasks. Tasks had been rated on an eight-point scale in order of decreasing importance; the most important being given a rating of 1. Therefore all tasks rated 1, 2, 3, or 4 were included in the examination blueprint. Some consolidation of tasks took place (adding further to task complexity) but finally the number of tasks was shortened to 104 therapist tasks in 9 subtest categories and 87 assistant tasks in 8 subtest categories. The Advisory Committee was asked to weight the subtest categories for each examination level in terms of test importance and they did so, taking into account the number of tasks assigned to each category by the Inventory authors. A test blueprint for each examination level was thus established.

2.2 ITEM DEVELOPMENT

The PES Item Drive for these examinations began in September, 1973, and continued throughout the contract, although the last major appeal took place in June, 1974. A total of 2,505 items were collected and processed by the end of the contract.

2.2.1 PES GENERAL METHODOLOGY

PES test philosophy is to obtain items from a large number of practitioners. This helps to assure a broad-based examination with respect to philosophies and orientations. It also helps to develop an examination which reflects the present practice of a profession in the field today. Each question or item received is processed through the following stages:

- Accessioning (all pertinent information on each item--accession number, name of constructor and amount due him/her, etc. - recorded in an item control book)
- Screening by consultants
- Psychometric and grammatical editing by test specialists and staff editors
- Keypunching and proofing
- Ribboning, or putting items into a format suitable for review
- Review by three subject matter experts for accuracy, relevance, and level of difficulty
- Review by consultant to consider reviewer's comments
- Psychometric and grammatical review
- Keypunch changes

2.2.2 OCCUPATIONAL THERAPY ITEM DRIVE

In accordance with PES's test philosophy, occupational therapists and assistants throughout the country were sent appeal letters, asking if they would be willing to write at least ten questions (items) in a category of their choice; as reimbursement they would receive an

honorarium of $1.25 per item. Included in PES's appeal letter was an endorsement letter from the American Occupational Therapy Association and a reply sheet with a return envelope. The categories from which prospective item writers could choose were those categories listed in the Task Inventory:

Self-Care
Work
Play/Leisure
Motor functioning
Sensory-integrative functioning (Therapist level examination only)
Cognitive functioning
Psychological functioning
Social functioning
Life Space

A computer printout (in label form) of all occupational therapy practitioners was obtained from AOTA. This list was divided into 9,072 therapists and 945 assistants, and further subdivided into ten categories:

Prevocational Evaluation and Work Adjustment (299 OTR's, 38 COTA's)
Chronic Illness and Aging (1,206, 325)
General Medical and Surgical (714, 64)
Orthopedic Neurological Dysfunction (2,750, 106)
Perceptual-Motor Deficit (670, 17)
Psycho-Social, Institution (2,176, 255)
Psycho-Social, Community (471, 35)
Community Health Programs (198, 19)
Addiction (53, 6)
Mental Retardation (535, 80)

Upon receipt of the computer printout, PES undertook a stratified random sampling of names for each of its six mass-letter appeals (the first consisting of 500 letters, the next five of 1,000 letters each). By the time of the June, 1974 appeal, 4,563 of the 9,072 therapists and all 945 of the assistants had been sent letters. PES

retained a copy of the entire printout and kept a continuous record of all labels utilized. A number of labels were not used for a variety of reasons, including repetition within categories and levels (e.g., some people were in both OTR and COTA listings) and names with non-USA addresses. However, Canada and Puerto Rico were included in the appeals.

A total of seven major appeals were conducted, one of them being to a select group of people recommended by the Advisory Committee. Following is a list of the appeals:

Appeal #	Date	# Appealed to
I	September 1973	500
II (personalized)	October 1973	126
III	December 1973 - January 1974	1008
IV	February 1974	1000
V	March 1974	1000
VI	May 1974	1000
VII	June 1974	1000
	TOTAL	5634

Upon receipt of the reply form indicating willingness to write items and selection of categories, a packet of material was sent to the individual. Originally, the packet contained a copy of those portions of the task inventory relating to the person's choice of category. The choice of tasks within a category was too large, considering only ten items were required. Later, a new, structured task form was developed and 12-15 different task forms were sent to each individual. Thus the choice of tasks on which to focus was limited while the item writer was still allowed a choice. The final item writer packet consisted of:

- A letter indicating the examination level, category, and client type for which the item writer was to construct items (according to the choices made on the reply sheet sent in by the item writer)
- 12-15 individual Task Forms, each with a specific task printed on the top and space to write the item below
- Instructions for Construction of Criterion Referenced Items
- Specific Instructions for Construction of O. T. Items
- The Table of Contents from the Task Inventory
- A sheet listing the Types of Client Disabilities on which to focus
- A sheet listing Knowledge and Skills on which to focus (later eliminated)
- An Explanation of Selected Terms
- A Summary sheet (for record-keeping)
- A Background Data sheet (for statistical purposes)
- A list of the Advisory Committee Members
- Return Envelope

These item writer packets were sent out until September, 1974, and resulted, by the end of contract, in the receipt of a total of 2,505 items.

2.2.3 ITEM PROCESSING

Upon receipt of the items, each item was accessioned (given a unique number) and sent to the consultant in charge of that category. The consultant reviewed the item, verified the level of the item and its relation to the task which the item writer had selected, eliminated inaccuracies and made necessary changes in subject matter. A computer program was developed to code each item to the appropriate Level, Task, Client Type, and Criticality. The consultant indicated this information in a matrix at the bottom of each task form and the information was keypunched along with the item. Several computer programs were modified to retrieve the information at later stages. The item underwent psychometric and editorial screening and was printed in a format suitable for review by subject matter experts. Each reviewer

received an independent copy of the item and was first asked to take the items as an exam; then they were asked to review each item and were given a set of criteria on which to judge the items. These criteria included accuracy of answer, subject matter suitability, level of difficulty, grammar, etc. In addition, each reviewer was asked to judge whether the item was:

- related to the task
- necessary knowledge for an entry level person

After each item had been independently reviewed by three subject matter experts, the items and comments were sent back to the consultant for reconsideration and began a second round of PES processing. After this second round of processing, 1750 items were ready for experimental administration, the rest having been omitted by the consultants, either on the first screening or after review.

2.3 PILOT TEST

In order to meet the goals of the Scope of Work it was necessary to experimentally administer the items to various groups of people: experimental group(s) of the level under consideration; control group (or groups) for comparison purposes. Before attempting large scale testing, it was decided to try a small scale pilot test in order to gain some knowledge of the problems involved in such a project.

After consultation with members of the Advisory Committee, it was decided to conduct a pilot test on a small number of items at each level, in three locations (California, Indiana, and New York). The following groups were selected:

Therapist Items	Assistant Items
Experienced OTR's	Experienced COTA's
Entry Level OTR's	Entry Level COTA's
Physical Therapists	Physical Therapist Assistants
Registered Nurses	Licensed Practical Nurses
Recreational Therapists	Therapeutic Recreation Assistants
High School Seniors	High School Seniors

2.3.1 RECRUITMENT

The goal was to obtain 30 candidates in each group, or 360 total. The procedure was to start with the test proctors in each of the three sites, obtain contacts in their respective geographic areas for each health group, solicit names of potential examinees from the contacts, and then forward materials to these people directly from PES. Whenever possible, contacts were encouraged to send only the names of those with whom they had been in personal touch, and

who expressed an interest in the test. Five hundred forty-four (544) potential examinees were contacted by letter or phone, but only 233 sat for the examination, even though two sessions (one in May and one in June) had been arranged and a stipend of $10.00 was paid.

The recruiting was difficult for the following reasons:

A. Recreational Therapists

They were often difficult to identify. Frequently, people performing recreational therapy functions were not officially recreational therapists. The National Therapeutic Recreation Society (NTRS) recognizes six (6) categories of recreational therapy personnel. Only four of these groups were suitable for our purposes, and the number of people existing in each group is quite small:

	Number on Roster
Therapeutic Recreation Assistant (Levels I & II)	50
Therapeutic Recreation Technician	15
Total	65

(Their qualifications involve two years of training, equivalent experience, or an equivalent combination of training and experience.)

Therapeutic Recreation Worker (Four years of training)	104

The next highest grouping of recreational therapists had too much experience to be considered entry-level.

B. Registered Nurses

University contacts were no good because they were involved in graduate programs. Hospitals were not much help because:

- the director of nursing was unauthorized to give out names;
- the director of personnel sometimes attempted to help, but he usually had little contact with the nurses themselves;
- whereas the people in OT categories had some interest in the test, those in Physical Therapy are familiar with PES, and the high school contacts were generally willing to cooperate, neither the contacts for the nurses nor the nurses themselves seemed to have any interest in the project. The stipend was not a significant persuader.

C. Physical Therapist Assistants (PTA's)

There were not that many physical therapist assistants available in the test areas, even though California and New York are third and fourth in concentration of PTA's. There are only 158 PTA members of the American Physical Therapy Association (APTA), and the total number of people who have ever graduated from approved PTA programs is 750.

The most efficient recruitment took place when:

- an interested person was delegated responsibility for gathering people they knew personally.
- the test was taken during the time that was already scheduled into their day.

2.3.2 RESULTS

Of the 233 people who sat for the examination, the breakdown is as follows:

Therapist Examination		Assistant Examination	
Experienced OTR's	28	Experienced COTA's	23
Entry-Level OTR's	29	Entry-Level COTA's	25
Physical Therapists	34	Physical Therapists Ass'ts	16
Registered Nurses	17	Licensed Practical Nurses	18
Recreational Therapists	6	Therapeutic Recreation Assistants	1
High School Seniors	22	High School Seniors	14
Total	136	Total	97

The number of therapeutic recreation workers and assistants who sat for the exam was not large enough to provide useful statistical data and these groups were, therefore, not included. On the Therapist level examination, the OTR's obtained the highest average percent score. On the Assistant level examination, the COTA's obtained the highest average percent score. In addition, the following results were indicated:

Therapist Items - Average Percent Scores

No significant difference between Experienced OTR's and Entry-level OTR's
Significant difference between OTR's and PT's
Significant difference between OTR's and RN's
Significant difference between all allied health groups and High School Seniors

Assistant Items - Average Percent Scores

No significant difference between Experienced COTA's and Entry-level COTA's
Significant difference between COTA's and PTA's
Significant difference between COTA's and LPN's
Significant difference between all allied health groups and High School Seniors

While the differences between groups were significant, there was some overlap between the occupational therapists/assistants and the other health groups. Mutual interests and overlapping educational programs had led to a prediction of this result.

2.4 PRETEST

The experimental design of the pretest was developed in accordance with the Scope of Work and the recommendations made by the Advisory Committee after considering the pilot test results. After considerable discussion, the Advisory Committee's decision on the groups to be tested was:

Therapist Items	Assistant Items
Entry-level OTR's	Entry-level COTA's
Entry-level PT's	Entry-level LPN's
College freshmen	College freshmen

Entry-level was defined as having completed all academic and work requirements and within the first year of actual practice. No individual who sat for the pilot test was to be included in the pretest. College freshmen were used instead of high school seniors because the pretest was scheduled for autumn.

One of the members of the Advisory Committee offered to attempt to test corrective therapists and manual arts therapists in the V.A. Hospital system, as additional comparison groups. It later turned out to be impossible.

2.4.1 RECRUITMENT

As a result of the pilot test experience, several guidelines recommended themselves:

- A decentralized approach to recruitment was necessary. Individuals should be contacted and asked to work as local coordinators for potential examinees in their geographic area. Names of qualified individuals would be sent to them by PES, along with recruitment material. The coordinators would also proctor the examination, if possible. Thus,

examinees would have a continuous link with a person in their profession who was personally known to them.
- Further approval and help should be solicited from the National Associations of the comparison health groups involved
- Some incentive should be devised for the comparison health groups and college freshmen, since a stipend was not to be offered. (The stipend had not really helped with the professional groups, in any case.)

In accordance with these guidelines, recruitment began:

A. Occupational Therapists and Assistants (goal: 400 OTR's, 30% COTA's)

1. The first step was to identify who the eligible examinees were and where they were located. The basic list used in identifying eligible examinees was a computerized roster of therapists and assistants who graduated on or after June of 1973. The therapists totaled 1,100; assistants, 600. These two groups were categorized by place of residence (zip code) and sites were established in any geographic location having 8 or more therapists and/or assistants. The resultant tally showed 35 sites with 582 OTR's and 454 COTA's.

2. The second step was to ask AOTA to recommend potential site coordinators in each location and methods for contacting them.

The main communications for this stage were:

- A mailgram sent from Jerry Johnson, President of AOTA, to each potential site coordinator, explaining the project and requesting assistance. When a site coordinator could not participate, a substitute was recruited.
- A letter sent simultaneously to 1,000 individual OTR's and COTA's who were to be approached to take the examination.
- A letter forwarded to site coordinators who responded positively to the mailgram; enclosed were computer labels of local Therapists/Assistants, and an information sheet. A letter to employers from Jerry Johnson, asking that individual employers allow time off for personnel to be tested, was also sent.

Because of the limited number of entry-level COTA's on the main AOTA listing, two other locating and recruiting methods were used.

3. A letter was sent to curriculum directors of all 38 schools with approved COTA programs, asking for names and addresses of their most recent graduates; 23 forwarded lists. As expected, some duplicated our original names, but many were new names. These were then correlated to our test sites, and a total of 146 additional COTA names were sent to nine site representatives.

4. A test administration was scheduled at the national convention in Washington, D.C. and a notice was sent to all listed OTR's and COTA's (799, total) who were scattered and, therefore, not available for testing in any of the regular sites. If any of these entry-level therapists/assistants were planning to attend the national convention, perhaps they would participate in the test administration at that time. Also, the pre-registration forms for the convention were screened and information was sent to any entry-level people not included in any of the other recruitment methods.

This decentralized method of obtaining examinees from the occupational therapy profession proved successful. It required an enormous amount of coordination and communication, however.

B. Physical Therapists (goal: 200)

APTA provided an endorsement letter, signed by Royce Noland, Executive Director of APTA, and a computer list of all individuals who had joined APTA since June of 1973, or who had become active APTA members beginning

June 1973. The chronological sequence of recruitment was as follows:

1. Double postcards were printed and sent to 438 people; one-half to be detached and returned to PES only if the individual qualified as an entry-level PT. The returned postcards showed considerable geographic scattering. Even when potential examinees were located in a geographic area where a site was located, they chose not to participate.

2. It was then decided to contact the PT curriculum directors throughout the country. Sixty-four curriculum directors' names were obtained from the April 1974 APTA Journal. These directors were mailed a letter asking their assistance in contacting and testing their June 1974 graduates; included in the letter were information sheets, APTA's endorsement letter, and a reply sheet designating their willingness to participate, or not, with an estimate of PT's accessible for testing. Forty-one curriculum directors responded and 25 were willing to participate. Depending upon their preference, PES mailed additional information to them for further distribution, or contacted the potential examinees directly. Although the PT's accessible for testing neared 1,000 and the curriculum directors did their best, we were unable to obtain our goal from this method. Twelve curriculum directors did provide examinees.

3. It was decided to open the entry-level requirements to include the January 1975 graduating class, but only two classes existed, and the faculty felt that the pretest would interfere with their Midterm. No examinees were obtained.

4. It was finally decided to contact the Veterans Administration hospital system in the hope that its centralized structure would help us to obtain entry-level PT's. An endorsement letter signed by Dr. J. Folsom, Director, Rehabilitation, Medicine Services, Veterans Administration, was sent to both the Chiefs of Physical Therapy and the head physicians of the Rehabilitation Medicine Service departments in V.A. hospitals across the country. Of the 25 hospitals contacted, only 10 sites were established, since many hospitals did not employ entry-level PT's. Nominal results were obtained from this method.

C. Licensed Practical Nurses (goal: 150)

Contacts were made with individuals at the American Nursing Association, National Federation of Licensed Practical Nurses, National League for Nursing, National Association for Practical Nurse Education and Service (NAPNES), Licensed Practical Nurses of New York City, Inc. and the New York City Health and Hospital Corporation.

1. Information sheets and questionnaires were distributed at the national convention of the National Federation of Licensed Practical Nurses in Atlantic City; no results.

2. Twenty-six LPN curriculum directors were contacted through information provided by NAPNES. The majority of these directors felt that they were not able to contact their LPN's once they had graduated. It seemed that the LPN graduates were too geographically dispersed and would presumably not want to sit for an examination, as they are an overly tested group. Several school directors did provide examinees, however.

3. A letter requesting participation was sent to the Nursing Directors of all New York City hospitals (through the Director, Nursing Education and Nursing Services, New York City Health and Hospitals Corporation and with the City's approval); no results.

4. It was finally decided to approach the V.A. system through the Office of Academic Affairs - Allied Health. Referral was made to Ms. Virginia B. Longest, Director of Nursing Service, Veterans Administration. An endorsement letter signed by her was mailed to the Chiefs of Nursing Service in 25 Veterans Administration hospitals across the country. While a number of hospitals did not employ entry-level people, 14 sites were finally established, after the "entry-level" experience requirements were opened up to two and one-half years experience.

D. College Freshmen (goal: 350)

Deans (and other officials) of forty-two (42) schools with allied health departments were personally contacted. Packets of information were sent, if they were interested. Seven schools eventually participated.

This student group was especially difficult to obtain. In the past, college students have been considered a "captive audience." With the advent of new policies concerning the rights of experimental subjects, combined with heavy course loads in shorter school terms, most deans and faculty members do not feel they have the right to cut into school time. Also, students tend to work after school, especially in the Community colleges. It is recommended that in the future, money be

made available to pay for their time, and examinations be carefully scheduled to avoid midterms and finals.

E. Results

Eventually a total of 1,174 people committed themselves to sit for the examination. However, as in the pilot test experience, not everyone showed up. The amount of people who actually sat for the examination was as follows:

OTR's	232
COTA's	169
PT's	101
LPN's	80
College Freshmen	200
Total	782

2.4.2 PROTOCOL FOR CONDUCT OF PRETEST

A. Groups - As already stated, the major test groups were the OTR's and COTA's. In order to validate the pretest results, however, a comparison group of college freshmen was needed at each of the therapist and assistant levels. An additional comparison group at each level was requested by the Advisory Committee, upon AOTA recommendation: physical therapists at the therapist level; licensed practical nurses at the assistant level.

B. Geographic Representation - An attempt was made to obtain geographical representation. The final breakdown of test sites by geographical region shows that there were 23 test sites in the East, 31 in the Midwest, 18 in the South, and 9 in the Far West.

C. Tests - Four forms of the therapist examination and three forms of the assistant examination were developed, each form containing approximately 250 items, split into two PARTS containing approximately 125 items each. The length and division into two parts simulated the final forms. All of the usable items in the bank were included in these forms (1750 items total, since 750 items had been omitted through the screening/review process). These forms were essentially collections of items and the resulting statistics were performed on an item by item basis. In the interests of sound experimental design, however, several procedures were performed to make the experimental forms further simulate the final forms: every task was included and the same number of items per task was put on each form; items were read by consultants to make sure that similar questions did not appear on the same form and that the subject matter on each form was as parallel as possible, on a subjective basis.

D. Administration

1. To nullify the fatigue effect, half of the examinees at each site received Part I first and then Part II for each form. The other half of the examinees received Part II first and then Part I. At two test sites the examinees were only able to take a 2 1/2 hour exam (1/2 of the complete exam). In these cases, equal numbers of Part I and Part II were distributed to the examinees for each form.

2. To aid in the statistical analysis of the test results, and insure examinee anonymity, each examinee was given an identification number. The I.D. numbers were made up of six digits which included the following information:

Digit 1 - Group number. Each of the six groups taking the exam was given a number from 1 to 6.

1 - OTR's
2 - PT's
3 - College Freshmen (taking the therapist exam)
4 - COTA's
5 - LPN's
6 - College Freshmen (taking the assistant exam)

Thus the first digit in each I.D. number referred to the examinee's group.

Digit 2 - Form number. For each level of the exam, therapist and assistant, several forms of the pretest were administered. The forms were numbered from 1 to 7. They were also color coded as an aid to the proctors in the distribution of the test booklets. Four forms of the pretest were given at the therapist level with the following numerical and color coding:

Pre 1 - white
Pre 2 - pink
Pre 3 - cherry
Pre 4 - gray

Three forms of the pretest were given at the assistant level. Their coding was as follows:

Pre 5 - buff (light yellow)
Pre 6 - goldenrod (deep yellow)
Pre 7 - russet (brown)

Thus the second digit of the I.D. number referred to the form number of the pretest that the examinee was assigned to take.

Digit 3, 4, 5, 6 - Test site/individual number. Each group was given a block of 4-digit numbers (from 0001 to 4000) from which each individual examinee was to receive a number. OTR's and COTA's were considered as one group because they were tested together at the same sites. PT's and LPN's were considered as separate groups since they were generally tested at different sites, and each was assigned its own block of numbers. College Freshmen were given only one block of numbers for the same reasons as the OTR's and COTA's.

OTR's/COTA's	0001 to 1000
LPN's	1001 to 2000
PT's	2001 to 3000
College Freshmen	3001 to 4000

From the blocks of numbers assigned to each of the different comparison groups, each test site received its block of numbers. This helped keep a tally of the actual number of examinees who took the pretest, by test site, after the material was mailed back to PES.

3. After each examinee scheduled to be tested at a given test site had been given an I.D. number, I.D. label booklets were assembled. For each examinee, a label was typed which comprised his name, the level of the exam he was to take, and his I.D. number. For example,

Therapist Exam	GORDON, IRIS
110001	

Each label was then pasted on a slip of paper of the same color as the form he was assigned to take. Next, all the labels were placed in alphabetical order. On the cover of the I.D. label booklet, the test site location and the name of the proctor were typed for identification purposes. Then, the booklet was stapled together and included with the material to be mailed to that test site.

4. Along with the I.D. booklet, a roster and an order form were also typed up. On the roster the examinees' names were put in alphabetical order and their I.D. numbers were also included next to the names. For each name, there was a place for the signature, and places for the proctor to check off when the 1st test booklet answer sheet was returned and when all the test material was returned. The resulting procedure was quite straight-forward while insuring anonymity on the answer sheets.

A proctors manual of instructions was written to provide the proctor with all the necessary information for the entire procedure.

5. When the examinee signed in at the beginning of the test session he or she was handed the colored sheet containing the I.D. label. When the proctor started to hand out the examination forms he or she asked for the examinees to show their I.D. labels. A package containing the same color exam as the examinees' I.D. label sheet was given to him. If the package contained PART I of e.g. the PINK form, the examinee received PART II, PINK, after the break. If the original package contained e.g. PART II, PINK form, the examinee received PART I, PINK, after the break. The original package included a background survey and a post test questionnaire, in addition to PART I or II of a given form.

6. Examinees were asked to fill out the background survey and then to begin the test. During the test, if they did not approve of an item, for whatever reason (controversial, inappropriate, etc.) they were to mark the item since the post test questionnaire would ask for their impressions.

2.4.3 PRETEST RESULTS

A. Administration

The pretest examinations were conducted from October 21 - November 13, 1974. Although 1174 people committed themselves, only 782 actually sat for the examinations. All packages were returned to PES by first class registered mail, however several packages were not received by the deadline for statistical processing. 759 examinees material arrived

in time for analysis:

O.T. level	O.T.A. level
231 OTR's	169 COTA's
96 PT's	67 LPN's
95 College Freshmen (71 took 1/2)	101 College Freshmen (79 took 1/2)
422	337

B. Data

1. The results of the Background Survey concurred with the initial hypothesis for the selection of comparison groups. The college freshmen were very different from the professional groups. The OTR and PT groups were similar. The COTA's and LPN's were similar in many ways, but the LPN's were more removed from the field of occupational therapy than were the PT's.

2. Item analyses were performed on each item tested for each group in which there was a sufficient number of people. These groups were OTR's, COTA's, and PT's. There were not enough LPN's sitting for any form to perform a valid item analysis for that group. College freshmen were not included in the item analysis, since their scores were extremely low. Results of the item analysis were used to select final forms.

3. Frequency distributions were generated for each group on each subtest area of each form and on each form as a whole. Also, frequency distributions were generated for each group on each subtest area across all forms of the Therapist examination and across all forms of the Assistant examination. The maximum raw score, average raw score, median and mode

were determined for each distribution in addition to the average percent score.

The frequency distributions of scores for the Therapist Forms show that:

--OTR's obtained the highest scores
--OTR's differed significantly from PT's
--OTR's differed significantly from College Freshmen
--PT's differed significantly from College Freshmen

The frequency distributions of scores for the Assistant Forms show that:

--COTA's obtained the highest scores
--COTA's differed significantly from LPN's
--COTA's differed significantly from College Freshmen
--LPN's differed significantly from College Freshmen

Again, as in the pilot test, there was overlap between the OTR's and PT's (also COTA's and LPN's to a lesser extent). Since there are areas of mutual interest and similar educational backgrounds, overlap was to be expected.

4. On the Feedback Survey, all examinees felt that the directions were clear on the use of the background survey answer sheet and the test answer sheets. Concerning the difficulty level of the subject matter, a majority of OTR's and COTA's checked the "appropriate" category. They also felt that the subject matter in each task category was representative of the work performed by entry-level OTR's and COTA's. All examinees were able to complete the examination in 3-4 hours.

C. Final Forms

In accordance with the item analysis, individual items were revised and 3 parallel forms of each examination (Therapist and Assistant) were assembled for delivery to the government. A description of the difficulty levels of the final forms can be found in the Appendix.

3.0 CREDENTIALING

The credentialing policies and procedures recommended by AOTA at the conclusion of contract NO1-AH-24172 are contained in the Appendix. Two resolutions have since been passed by the Delegate Assembly of AOTA:

- A task force has been set up to determine whether the credentialing criteria developed on contract NO1-AH-24172 is still acceptable to AOTA. (resolution #380-74)
- A task force has been set up to evaluate the examination and other results of this contract (NO1-AH-34063).

After discussion of the rather general wording of some of the recommendations, in areas of financing, representation, etc., the Advisory Committee voted to endorse the AOTA recommendations on credentialing policies and procedures, with the understanding that the AOTA task force will continue the work of necessary clarification.

4.0 AUDIOVISUALS

In accordance with the scope of work, it was necessary to evaluate and make recommendations on the potential use of audiovisuals, simulators and related material for proficiency testing in the field of occupational therapy.

In the development of these examinations, item writers were encouraged to send in visual material as part of their items. The Instructions to Item Writers contained the following section:

> **CONSTRUCTION OF VISUAL ITEMS**
>
> *Wherever the content of a field makes particular use of visually presented material, it is desirable to include items that test knowledge and skill in this aspect of the content.* The same general rules apply to the construction of items involving visual materials as those involving verbal materials. Illustrations of the use of visual items are suggested below:
>
> 1. A graph, diagram, chart or picture may be presented, and questions asked about its interpretation, content, or use.
> 2. A question might be asked in which the four options are visually presented, such as "Which one of the following illustrates...?"
> 3. An illustration might be presented, and questions asked to determine if the examinee recognizes the illustrated material, can identify the location of a specified part, or make a judgment based on the presentation (e.g., slides, color pictures, videotapes, movies, etc.).
> 4. A three-dimensional model might constitute the basis for similar questions, and additionally could be used in circumstances where the two-dimensional illustration would be insufficient.
>
> While innovative approaches involving the use of audiovisual materials are encouraged, the item constructor should recognize that the use of items involving visual content is time-consuming, in relation to the total test content, and costly, in terms of production. Nevertheless, certain content can only be tested in this way, and other content can best be tested in this way even though the material may be adaptable to other methods of treatment.

At the same time evaluation of audiovisual material for future test purposes was proceeding. First it was established that a review of all the available medical and allied visual material would not be a useful procedure, since:

- To find all the material that might have applicability to occupational therapy testing would require a review of mater in many health fields and there is no systematic cataloguing visual materials. The entire process would be enormously expensive and time consuming.
- Most learning materials are really not useful for testing purposes. Even if some portion of a learning film, etc., were useful, the cost of obtaining rights to the film and excerpting the portion to be used might be more expensive than an entire new production.

After discussion with the Assistant Director, Continuing Medical Education, American Medical Association (AMA), it seemed feasible t produce a 3-4 minute color film or videotape for approximately $1,0 plus script-writing time. The costs could perhaps be shared with t AMA if a subject, suitable for usage in physician assessment as wel as occupational therapy, could be found. In any case, the cost is exorbitant.

As the examination developed and items related to the task inventor were received, the consultants were asked to review the subtest cat and tasks and evaluate the type of audiovisuals necessary to adequa represent the tasks, or enhance them. By the end of the contract t the opinion of the consultants that the best use of audiovisuals f test would be line drawings, since movies and videotapes are cumbe and there isn't enough experience in teaching with audiovisuals to olate into testing.

Nevertheless, it was the recommendation of the Advisory Committee production of a film or videotape be further explored in the futur

5.0 PROBLEMS ENCOUNTERED

5.1 ITEM DRIVE

Problem: It was very difficult to get item writers to write items for the program. Many people committed themselves, but very few completed the project. Because of the requirement for task-related items, a dual process of absorbing the task information and then writing suitable items was necessary. This process appeared to be too difficult and/or too time consuming for most people.

Solution: A combination of simplification/reduction of material in the packets sent to item writers and persistence finally resulted in success. Originally people would receive a packet of all of the tasks pertaining to their chosen category (in many cases several categories). Later on they received only a few tasks, each one printed on a separate form with space for writing the item on the form. Eventually 5,634 appeals were made in order to obtain items from 254 item writers.

5.2 RELATION OF EXAMINATION ITEMS TO TASK INVENTORY

In section 4.0 of the final report on Contract NO1-AH-24172 there is a discussion of the problems encountered on that program. The following is an excerpt from that section:

> "The biggest single problem encountered by the Project Staff in its efforts to delineate the actual and appropriate roles and functions of occupational therapy personnel was the lack of comprehensive descriptions of the process through which occupational therapy is provided. In the absence of a single, unifying theoretical frame of reference, such descriptions as are available depict only circumscribed parts of a wide

continuum of practice. As a result, much more time than had been anticipated had to be devoted to the systematic integration of pertinent descriptions of the roles, functions and responsibilities of occupational therapy personnel and to the identification and elimination of gaps, misspecifications, and biases contained in this inventory.

Given the broad scope of the field, its multi-dimensional concerns, the variety and complexity of the type of services which occupational therapy personnel provide, the wide range of settings in which occupational therapy personnel work, and the diversity of theoretical perspectives from which such personnel view their roles and functions, the task of identifying prerequisite knowledge and skills turned out to be even more formidable.

.....

Finally, the task of formulating policies and procedures for credentialing personnel at the levels for which examinations are to be developed was influenced by widespread uncertainty and anxiety within the profession about the ultimate validity and reliability of the examinations and their adequacy as measures of the special knowledge, skills, and attitudes needed for acceptable practice."

Problem: Stemming from the difficulty of identifying the prerequisite knowledge and skills of the two levels and the anxiety over the adequacy of the examination as a measure of those knowledges and skills, there has been a continuing concern voiced in a two part question: do the items reflect the task inventory; do the items reflect the uniqueness of occupational therapy?

Solution: On the assumption that the task inventory reflects the uniqueness of occupational therapy, every attempt was made to relate the items to the individual tasks contained in the inventory. The items were written by highly respected members of the profession. Each item was specifically related to a given task by the item writer, who had been instructed to write about the work that he or she performs in relation to that

task. The item was then sent to PES and screened by one of six occupational therapists, employed upon recommendation by AOTA as experts in different subject matter areas. As part of the screening process the consultant had to verify the task-relatedness of the item and to change this coding, if necessary. After screening and in-house processing, each item was independently reviewed by three occupational therapists or assistants who were considered by AOTA to be subject matter experts in the area of the item's subject matter. Each of these reviewers was asked to verify the task-relatedness of the item and to verify that it was indeed necessary information for an entry-level therapist or assistant. Upon completion of this entire process, the items were tested on comparison health groups and results showed that, while there was overlap between occupational therapy personnel and other health groups, the differences between groups were significant with occupational therapy personnel obtaining the highest scores.

5.3 RECRUITMENT FOR PILOT TEST AND PRETEST

Problem: The problem of recruitment has been documented at length in sections 2.3.1 and 2.4.1.

Solution: The attempted solutions have also been well documented earlier in this report. No solutions with any group were entirely successful, because of the inherent lack of motivation to sit for the examination. No incentive was ever found to adequately

motivate potential examinees and it was only at enormous expense of time and energy on the part of many people that we were able to obtain the unusually good results that we did obtain.

5.4 PASS-FAIL POINT IN A CRITERION REFERENCED EXAMINATION

Problem: The theory of criterion-referenced testing (CRT) discusses a criterion level, or mastery level, of perfection. Allowing for some testing error, a pass-fail point of 85-90% has been mentioned in the literature as acceptable. Criterion-referenced tests, however, have never been developed for a a whole profession.

Solution: A criterion-referenced test differs from other tests, including norm referenced tests, in two definitive ways:

- It has an extremely narrow focus.
- A criterion level (or mastery level) is set for it.

If these dimensions should vary somewhat a modification occurs, e.g. if the focus is broadened it becomes more of a licensure type examination. In the case of the occupational therapy examinations, the focus is indeed broadened and we have a hybrid situation. In order to set a criterion level for these tests we need to use the data gained from the pretest, and from any future testing prior to actual usage, to set the criterion level, rather than an *a priori* criterion level based on CRT theory. Since the situation is a hybrid

one, data plus theory may combine to set the most appropriate criterion level. The pretest data is excellent: there is a larger difference between the O.T./P.T. group and college students (likewise O.T.A./L.P.N. and college students); and there is a difference albeit smaller, between O.T.'s and P.T.'s (and O.T.A.'s and L.P.N.'s). Where the passing point is set will depend upon whether one is more concerned with errors of omission or commission. An error of omission means that qualified people will be omitted from certification. An error of commission means that unqualified people may be certified. If the passing point is set high one runs the risk of greater errors of omission; if it is set too low, one runs the risk of errors of commission.

A complication to setting the pass-fail point is that many of the items were revised after receipt of the pretest data and, once revised, the data gained on an item during pretest is no longer usable; thus the problem of how to set a pass-fail point based on partial data. After discussion it was decided by the Advisory Committee that recommendations for a pass-fail point policy will be made and the actual point will be established after further testing. The recommendations are to be found in section 6.0.

6.0 RECOMMENDATIONS AND CONCLUSIONS

The following recommendations were made by the Advisory Committee at the last meeting of the contract.

- External validation and associated test development should proceed. Pending the outcome of these investigations, no decisions should be made as to what constitutes satisfactory performance, as measured by these tests, until the group reconvenes to review these policies. At that time:

  - A minimum passing point should be set on each of the nine subtest categories of the Therapist examination and each of the eight subtest categories of the Assistant examination in accordance with the intent of the blueprint. It is recognized that these passing points will be arbitrary ones since PES has stated that scores in most of the individual subtests cannot be statistically substantiated.
  - An overall passing point be set for the total examination. This passing point should be set at a higher level than any of the subtest passing points.

- The following rational subtest groupings are recommended for future validity and reliability studies in order to establish identification of the examinees' areas of weakness.

  Therapist

  1. Self-Care, Work, Play/Leisure
  2. Motor
  3. Sensory Integration, Cognitive
  4. Psychological, Social, Life Space

  Assistant

  1. Work, Play/Leisure
  2. Self-Care
  3. Motor, Cognitive
  4. Psychological, Social, Life Space

Provision is made for any changes in this grouping as part of additional validation.

- Future study be made of the three areas of Evaluation, Planning and Implementation for possible setting of subtest points at a later date (if warranted).

- All of the foregoing recommendations may be changed if further studies warrant.

APPENDIX

BLUEPRINT

THERAPIST EXAM

	Exam %	EVALUATION 30% (75Q)	PLANNING 20% (50Q)	IMPLEMENTATION 50% (125Q)	TOTAL Questions
1. Self Care	13% (32.5Q)	4 tasks 9 questions	2 tasks 6 questions	8 tasks 18 questions	33
2. Work	13% (32.5Q)	4 tasks 10 questions	2 tasks 6 questions	8 tasks 17 questions	33
3. Play/Leisure	8% (20Q)	3 tasks 6 questions	1 tasks 4 questions	5 tasks 10 questions	20
4. Motor	20% (50Q)	3 tasks 15 questions	3 tasks 10 questions	12 tasks 25 questions	50
5. Sensory-Integrative	13% (32.5Q)	4 tasks 10 questions	3 tasks 6 questions	8 tasks 16 questions	32
6. Cognitive	8% (20Q)	3 tasks 6 questions	2 tasks 4 questions	4 tasks 10 questions	20
7. Psychological	13% (32.5Q)	3 tasks 9 questions	3 tasks 6 questions	7 tasks 18 questions	33
8. Social	8% (20Q)	3 tasks 6 questions	2 tasks 4 questions	4 tasks 10 questions	20
9. Life Space	4% (10Q)	2 tasks 6 questions	1 tasks 3 questions	0 tasks 0 questions	9
TOTAL (Actual)		77 questions	49 questions	124 questions	250 Q

6/74 pb

BLUEPRINT

ASSISTANT EXAM

	Exam %	EVALUATION 20% (50Q)	PLANNING 10% (25Q)	IMPLEMENTATION 70% (175Q)	TOTAL Questions
1. Self Care	30% (75Q)	7 tasks 15 questions	3 tasks 6 questions	12 tasks 52 questions	73
2. Work	30% (75Q)	4 tasks 15 questions	1 tasks 4 questions	22 tasks 55 questions	74
3. Play/Leisure	20% (50Q)	3 tasks 10 questions	1 tasks 4 questions	12 tasks 35 questions	49
4. Motor	5% (12.5Q)	1 tasks 2 questions	1 tasks 2 questions	4 tasks 9 questions	13
5. Cognitive	4% (10Q)	1 tasks 2 questions	1 tasks 2 questions	2 tasks 7 questions	11
6. Psychological	4% (10Q)	1 tasks 2 questions	1 tasks 2 questions	2 tasks 7 questions	11
7. Social	5% (12.5Q)	1 tasks 2 questions	1 tasks 2 questions	3 tasks 9 questions	13
8. Life Space	2% (5Q)	2 tasks 4 questions	1 tasks 2 questions	0 tasks 0 questions	6
TOTAL (Actual)		52 questions	24 questions	174 questions	250 Q

6/74 pb

OCCUPATIONAL THERAPIST TASKS - L4

SELF CARE - Evaluation

11B1A0 - Evaluation of Occupational Performance
Select and plan the methodology for the collection of data which will identify the client(s) self care history, interests, and attitudes. (4)

11B1E0 - Evaluation of Occupational Performance
Interpret data, identify, describe and summarize the client(s) history, interests, and attitudes in relation to self care performance. (3)

11B1F0 - Interpret data, identify, describe and summarize the client(s) self care skills. (2)

11E100 - Terminate or recommend termination of occupational therapy services.(1)

SELF CARE - Planning

12A3A1 - Goal Setting
Formulate and establish priority occupational therapy goals (in collaboration with client(s)) to assist in the restoration and/or development of occupational performance and life style, specifically self care performance. (2)

12E200 - Terminate
Formulate, in collaboration with client/family and significant others, discharge and follow-up plans. (1)

SELF CARE - Implementation

13A1E0 - Implement occupational therapy program to restore/develop performance of self care tasks.
Approve appropriateness of design/construction/or selection of adaptive equipment. (2)

13A1F2 - Implement occupational therapy program to restore/develop performance of self care tasks.
Instruct client in use of: complex adapted methods, equipment, and work simplification techniques. (3)

13A1I2 - Implement occupational therapy program to restore/develop performance of self care tasks.
Structure/adapt environment to meet client needs, specifically home (life) environment. (2)

13A1L0 - Implement occupational therapy program to restore/develop performance of self care tasks.
Analyze/summarize client performance. (1)

13A100 - Implement occupational therapy program to restore/develop performance of self care tasks.
Change/adapt program to meet client(s) needs. (2)

NOTE: ( ) = CRITICALITY LEVEL

SELF CARE - Implementation (continued)

13B1F2 - Implement occupational therapy program to prevent the deterioration of self care tasks.
Instruct client in use of: complex adapted methods, equipment, and work simplification techniques. (4)

13B1L0 - Implement occupational therapy program to prevent the deterioration of performance of self care tasks.
Analyze/summarize client performance. (3)

13B1O0 - Implement occupational therapy program to prevent the deterioration of performance of self care tasks.
Change/adapt program to meet client(s) needs. (3)

WORK - Evaluation

21B2A0 - Evaluation of Occupational Performance
Select and plan the methodology for the collection of data which will identify client(s) work history, work interests, and attitudes. (4)

21B2E0 - Evaluation of Occupational Performance
Interpret data, identify, describe and summarize the client(s) work history, work interests, work skills, and attitudes. (3)

21B2H0 - Evaluation of Occupational Performance
Identify the performance components and life space elements which may be contributing to the nature of the client(s) work performance. (4)

21E100 - Terminate or recommend termination of occupational therapy services. (1)

WORK - Planning

22A3A2 - Goal Setting
Formulate and establish priority occupational therapy goals (in collaboration with client(s)) to assist in the restoration and/or development of occupational performance and life style, specifically work performance. (2)

22E200 - Terminate
Formulate, in collaboration with client/family and significant others, discharge and follow-up plans. (1)

WORK - Implementation

23A2H2 - Implement occupational therapy program to restore/develop performance of home care and child care tasks.
Structure/adapt environment to meet client needs: home (life) environment.(3)

23A2K0 - Implement occupational therapy program to restore/develop performance of home care and child care tasks.
Analyze/summarize client performance. (1)

23A2N0 - Implement occupational therapy program to restore/develop performance of home care and child care tasks.
Change/adapt program to meet client(s) needs. (2)

WORK - Implementation (continued)

23A3G0 - Implement occupational therapy program to explore, identify, and develop work interests.
Analyze/summarize client performance. (1)

23A4L0 - Implement occupational therapy program to restore/develop performance of work tasks.
Analyze/summarize client performance. (1)

23A400 - Implement occupational therapy program to restore/develop performance of work tasks.
Change/adapt program to meet client(s) needs. (3)

23B2L0 - Implement occupational therapy program to prevent the deterioration of performance of home care and child care tasks.
Analyze/summarize client performance. (2)

23B3F2 - Implement occupational therapy program to prevent the deterioration of work interests and performance of work tasks.
Instruct client in use of: complex adapted methods, equipment, and work simplification techniques. (4)

PLAY/LEISURE - Evaluation

31B3E0 - Evaluation of Occupational Performance
Interpret data, identify, describe and summarize the client(s) play/leisure time history, interests and attitudes. (3)

31B3F0 - Evaluation of Occupational Performance
Interpret data, identify, describe, and summarize the client(s) play/leisure time skills. (3)

31E100 - Terminate or recommend termination of occupational therapy services.(1)

PLAY/LEISURE - Planning

32A3A3 - Goal Setting
Formulate and establish priority occupational therapy goals (in collaboration with client(s)) to assist in the restoration and/or development of occupational performance and life style, specifically play/leisure time performance. (3)

PLAY/LEISURE - Implementation

33A5G0 - Implement occupational therapy program to explore, identify, and develop play/leisure time interests.
Analyze/summarize client performance. (1)

33A6E0 - Implement occupational therapy program to restore/develop performance of play/leisure time tasks.
Approve appropriateness of design/construction/or selection of adaptive equipment. (4)

PLAY/LEISURE - Implementation (continued)

33A6L0 - Implement occupational therapy program to restore/develop perf
of play/leisure time tasks.
Analyze/summarize client performance. (1)

33A600 - Implement occupational therapy program to restore/develop perf
of play/leisure time tasks.
Change/adapt program to meet client(s) needs. (2)

33B4L0 - Implement occupational therapy program to prevent the deterior
of play/leisure time interests and performance of play/leisure
Analyze/summarize client performance. (2)

MOTOR FUNCTIONING - Evaluation

41C1A0 - Evaluation of Performance Components
Select and plan the methodology for the collection of data whic
assist in identifying client(s) motor functioning. (3)

41C1C0 - Interpret data, identify, describe and summarize the client(s)
functioning in relation to its effect on the client(s) occupati
performance, life style, and performance components. (1)

41E100 - Terminate or recommend termination of occupational therapy serv

MOTOR FUNCTIONING - Planning

42A3B1 - Goal Setting
Formulate and establish priority occupational therapy goals (in
laboration with client(s)) to assist in the restoration and/or
velopment of performance components, specifically motor functio

42B1B1 - Select and Plan Methodology
Select and plan occupational therapy techniques, media, and sequ
of activity in order to assist in the restoration and/or develop
of performance components, specifically motor functioning. (4)

42E200 - Terminate
Formulate, in collaboration with client/family and significant
discharge and follow-up plans. (1)

MOTOR FUNCTIONING - Implementation

43C1C3 - Implement occupational therapy program to assist in the restorat
development of motor functioning.
Use techniques such as: graded stretching. (2)

43C1C4 - Implement occupational therapy program to assist in the restorat
development of motor functioning.
Use techniques such as: muscle re-education. (2)

43C1C5 - Implement occupational therapy program to assist in the restorat
development of motor functioning.
Use techniques such as: neuromuscular facilitation. (2)

MOTOR FUNCTIONING - Implementation (continued)

43C1F0 - Implement occupational therapy program to assist in the restoration/development of motor functioning.
Approve appropriateness of design/construction/or selection of adaptive equipment. (2)

43C1G2 - Implement occupational therapy program to assist in the restoration/development of motor functioning.
Instruct client in use of: complex adapted methods, equipment, and work simplification techniques. (2)

43C1I0 - Implement occupational therapy program to assist in the restoration/development of motor functioning.
Design or recommend the design of orthotic/prosthetic devices. (1)

43C1K0 - Implement occupational therapy program to assist in the restoration/development of motor functioning.
Approve the construction of hand splints; fit hand splints. (2)

43C1L0 - Implement occupational therapy program to assist in the restoration/development of motor functioning.
Teach use and care of orthotic/prosthetic devices. (4)

43C1M0 - Implement occupational therapy program to assist in the restoration/development of motor functioning.
Instruct/supervise other staff in occupational therapy program implementation. (4)

43C1Q0 - Implement occupational therapy program to assist in the restoration/development of motor functioning.
Analyze/summarize client performance. (1)

43C1S0 - Implement occupational therapy program to assist in the restoration/development of motor functioning.
Coordinate program with other disciplines. (4)

43C1T0 - Implement occupational therapy program to assist in the restoration/development of motor functioning.
Change/adapt program to meet client(s) needs. (1)

SENSORY-INTEGRATIVE FUNCTIONING - Evaluation

51C2A0 - Select and plan methodology for the collection of data which will assist in identifying client(s) sensory-integrative functioning. (2)

51C2B3 - Collect data on sensory-integrative functioning through: testing of client. (4)

51C2C0 - Interpret data, identify, describe and summarize to appropriate persons the client(s) sensory-integrative functioning in relation to its effect on the client(s) occupational performance, life style, and performance components. (1)

51E100 - Terminate or recommend termination of occupational therapy services. (1)

SENSORY-INTEGRATIVE FUNCTIONING - Planning

52A3B2 - Goal Setting
Formulate and establish priority occupational therapy goals (in collaboration with client(s)) to assist in the restoration and/or development of performance components, specifically sensory-integrative functioning. (1)

52B1B2 - Select and Plan Methodology
Select and plan occupational therapy techniques, media, and sequence of activity in order to assist in the restoration and/or development of performance components, specifically sensory-integrative functioning.(3)

52E2OO - Terminate
Formulate, in collaboration with client/family and significant others, discharge and follow-up plans. (1)

SENSORY-INTEGRATIVE FUNCTIONING - Implementation

53C2BO - Implement occupational therapy program to assist in the restoration/development of sensory-integrative functioning.
Instruct client/family in activity. (3)

53C2C2 - Implement occupational therapy program to assist in the restoration/development of sensory-integrative functioning.
Use techniques such as: righting and equilibrium stimulation. (3)

53C2C3 - Implement occupational therapy program to assist in the restoration/development of sensory-integrative functioning.
Use techniques such as: neuromuscular facilitation. (3)

53C2DO - Implement occupational therapy program to assist in the restoration/development of sensory-integrative functioning.
Instruct/supervise other staff in occupational therapy program implementation. (3)

53C2HO - Implement occupational therapy program to assist in the restoration/development of sensory-integrative functioning.
Analyze/summarize client performance. (2)

53C2IO - Implement occupational therapy program to assist in the restoration/development of sensory-integrative functioning.
Discuss client performance with client/family and significant others.(3)

53C2JO - Implement occupational therapy program to assist in the restoration/development of sensory-integrative functioning.
Coordinate program with other disciplines. (3)

53C2KO - Implement occupational therapy program to assist in the restoration/development of sensory-integrative functioning.
Change/adapt program to meet client(s) needs. (1)

COGNITIVE FUNCTIONING - Evaluation

61C3A0 - Evaluation of Performance Components
Select and plan methodology for the collection of data which will assist in identifying client(s) cognitive functioning. (3)

61C3C0 - Interpret data, identify, describe and summarize the client(s) cognitive functioning in relation to its effect on the client(s) occupational performance, life style, and performance components.(1)

61E100 - Terminate or recommend termination of occupational therapy services.(1)

COGNITIVE FUNCTIONING - Planning

62B1B3 - Select and Plan Methodology
Select and plan occupational therapy techniques, media, and sequence of activity in order to assist in the restoration and/or development of performance components, specifically cognitive functioning. (4)

62E200 - Terminate
Formulate, in collaboration with client/family and significant others, discharge and follow-up plans. (1)

COGNITIVE FUNCTIONING - Implementation

63C3C0 - Implement occupational therapy program to assist in the restoration/development of cognitive functioning.
Instruct/supervise other staff in occupational therapy program implementation. (4)

63C3G0 - Implement occupational therapy program to assist in the restoration/development of cognitive functioning.
Analyze/summarize client performance. (1)

63C3H0 - Implement occupational therapy program to assist in the restoration/development of cognitive functioning.
Discuss client performance with client/family and significant others.(3)

63C3J0 - Implement occupational therapy program to assist in the restoration/development of cognitive functioning.
Change/adapt program to meet client(s) needs. (1)

PSYCHOLOGICAL FUNCTIONING - Evaluation

71C4A0 - Evaluation of Performance Components
Select and plan methodology for the collection of data which will assist in identifying client(s) psychological functioning. (4)

71C4C0 - Interpret data, identify, describe and summarize the client(s) psychological functioning in relation to its effect on the client(s) occupational performance, life style, and performance components. (1)

71E100 - Terminate or recommend termination of occupational therapy services. (1)

PSYCHOLOGICAL FUNCTIONING - Planning

72A3B4 - Goal Setting
Formulate and establish priority occupational therapy goals(in collaboration with client(s)) to assist in the restoration and/or development of performance components, specifically psychological functioning.(1)

72B1B4 - Select and Plan Methodology
Select and plan occupational therapy techniques, media, and sequence of activity in order to assist in the restoration and/or development of performance components, specifically psychological functioning.(4)

72E2OO - Terminate
Formulate, in collaboration with client/family and significant others, discharge and follow-up plans. (1)

PSYCHOLOGICAL FUNCTIONING - Implementation

73C4C1 - Implement occupational therapy program to assist in the restoration/development of psychological functioning.
Use techniques such as: task oriented groups. (4)

73C4C2 - Implement occupational therapy program to assist in the restoration/development of psychological functioning.
Use techniques such as: therapeutic role models. (4)

73C4DO - Implement occupational therapy program to assist in the restoration/development of psychological functioning.
Instruct/supervise other staff in occupational therapy program implementation. (4)

73C4HO - Implement occupational therapy program to assist in the restoration/development of psychological functioning.
Analyze/summarize client performance. (1)

73C4IO - Implement occupational therapy program to assist in the restoration/development of psychological functioning.
Discuss client performance with client/family and significant others.(4)

73C4JO - Implement occupational therapy program to assist in the restoration/development of psychological functioning.
Coordinate program with other disciplines. (4)

73C4KO - Implement occupational therapy program to assist in the restoration/development of psychological functioning.
Change/adapt program to meet client(s) needs. (2)

SOCIAL FUNCTIONING - Evaluation

81C5AO - Evaluation of Performance Components
Select and plan methodology for the collection of data which will assist in identifying client(s) social functioning. (4)

81C5B2 - Collect data on social functioning through: observation of client activity performance. (2)

81C5CO - Interpret data, identify, describe and summarize the client(s) social functioning in relation to its effect on the client(s) occupational performance, life style, and performance components. (1)

SOCIAL FUNCTIONING - Planning

82A3B5 - Goal Setting
Formulate and establish priority occupational therapy goals (in collaboration with client(s)) to assist in the restoration and/or development of performance components, specifically social functioning. (3)

82E200 - Terminate
Formulate, in collaboration with client/family and significant others, discharge and follow-up plans. (1)

SOCIAL FUNCTIONING - Implementation

83C5C1 - Implement occupational therapy program to assist in the restoration/development of social functioning.
Use techniques such as: task oriented groups. (4)

83C5H0 - Implement occupational therapy program to assist in the restoration/development of social functioning.
Analyze/summarize client performance. (1)

83C5J0 - Implement occupational therapy program to assist in the restoration/development of social functioning.
Coordinate program with other disciplines. (4)

83C5K0 - Implement occupational therapy program to assist in the restoration/development of social functioning.
Change/adapt program to meet client(s) needs. (2)

LIFE SPACE - Evaluation

91D1C0 - Interpret data, identify, describe and summarize the client(s) cultural background and value orientations in relation to their effect on the client(s) occupational performance, life style, and performance components. (2)

91D2C0 - Interpret data, identify, describe and summarize the client(s) environment and its effect on the client(s) occupational performance, life style, and performance components. (1)

LIFE SPACE - Planning

92E200 - Terminate
Formulate, in collaboration with client/family and significant others, discharge and follow-up plans. (1)

OCCUPATIONAL THERAPY ASSISTANT TASKS - L2

SELF CARE - Evaluation

11A1C0 - Initial Screening
Evaluation of client(s) general needs and suitability for occupational therapy services.
Review written information and identify pertinent details. (1)

11B1C1 - Collect data on self care history, interests, and attitudes through: interview with client/family. (3)

11B1C2 - Evaluation of Occupational Performance
Collect data on self care history, interests, and attitudes through: observation of client activity performance. (4)

11B1D1 - Collect data on self care performance skills through: interview with client/family. (2)

11B1D2 - Collect data on self care performance skills through: observation of client activity performance. (2)

11B1D3 - Collect data on self care performance skills through: testing of client. (1)

11B1G0 - Evaluation of self care performance
Discuss evaluative data and interpretation with client/family and significant others. (3)

SELF CARE - Planning

12A4A1 - Goal Setting
Formulate occupational therapy goals to prevent the deterioration of occupational performance and life style, specifically self care performance. (1)

12B2A1 - Select and Plan Methodology
Select and plan occupational therapy techniques, media, and sequence of activity in order to prevent the deterioration of occupational performance and life style, specifically self care performance. (2)

12C200 - Discuss preventive occupational therapy program plan with client/family and significant others. (3)

SELF CARE - Implementation

13A1A0 - Implement occupational therapy program to restore/develop performance of self care tasks.
Orient client/family to activity. (2)

13A1B0 - Implement occupational therapy program to restore/develop performance of self care tasks.
Instruct client/family in activity. (1)

NOTE: ( ) = CRITICALITY LEVEL

SELF CARE - Implementation (continued)

13A1F1 - Implement occupational therapy program to restore/develop performance of self care tasks.
Instruct client in use of: simple adapted methods, equipment, and work simplification techniques. (2)

13A1I1 - Implement occupational therapy program to restore/develop performance of self care tasks.
Structure/adapt environment to meet client needs: immediate work area/project/activity. (2)

13A1J0 - Implement occupational therapy program to restore/develop performance of self care tasks.
Direct client performance. (2)

13A1K0 - Implement occupational therapy program to restore/develop performance of self care tasks.
Observe/report client qualitative and quantitative performance to supervisor. (1)

13B1A0 - Implement occupational therapy program to prevent the deterioration of performance of self care tasks.
Orient client/family to activity. (2)

13B1B0 - Implement occupational therapy program to prevent the deterioration of performance of self care tasks.
Instruct client/family in activity. (1)

13B1F1 - Implement occupational therapy program to prevent the deterioration of performance of self care tasks.
Instruct client in use of: simple adapted methods, equipment, and work simplification techniques. (1)

13B1I1 - Implement occupational therapy program to prevent the deterioration of performance of self care tasks.
Structure/adapt environment to meet client needs: immediate work area/project/activity. (2)

13B1J0 - Implement occupational therapy program to prevent the deterioration of performance of self care tasks.
Direct client performance. (2)

13B1K0 - Implement occupational therapy program to prevent the deterioration of performance of self care tasks.
Observe/report client qualitative and quantitative performance to supervisor. (1)

WORK - Evaluation

21A1C0 - Initial Screening
Evaluation of client(s) general needs and suitability for occupational therapy services.
Review written information and identify pertinent details. (1)

21B2C1 - Evaluation of Occupational Performance
Collect the data on work history, work interests, and attitudes through: interview with client/family. (4)

WORK - Evaluation (continued)

21B2D1 - Evaluation of Occupational Performance
Collect the data on work skills through: interview with client/family. (4)

21B2D2 - Collect the data on work skills through: observation of client activity performance. (3)

WORK - Planning

22C2OO - Discuss preventive occupational therapy program plan with client/family and significant others. (3)

WORK - Implementation

23A2AO - Implement occupational therapy program to restore/develop performance of home care and child care tasks.
Orient client/family to activity. (4)

23A2BO - Implement occupational therapy program to restore/develop performance of home care and child care tasks.
Instruct client/family in activity. (1)

23A2H1 - Implement occupational therapy program to restore/develop performance of home care and child care tasks.
Structure/adapt environment to meet client needs: immediate work area/project/activity. (4)

23A2IO - Implement occupational therapy program to restore/develop performance of home care and child care tasks.
Direct client performance. (3)

23A2JO - Implement occupational therapy program to restore/develop performance of home care and child care tasks.
Observe/report client qualitative and quantitative performance to supervisor. (1)

23A3BO - Implement occupational therapy program to explore, identify, and develop work interests.
Instruct client/family in activity. (2)

23A3EO - Implement occupational therapy program to explore, identify, and develop work interests.
Direct client performance. (4)

23A3FO - Implement occupational therapy program to explore, identify, and develop work interests.
Observe/report client performance to supervisor. (3)

23A4AO - Implement occupational therapy program to restore/develop performance of work tasks.
Orient client/family to activity. (4)

23A4BO - Implement occupational therapy program to restore/develop performance of work tasks.
Instruct client/family in activity. (1)

WORK - Implementation (continued)

23A4F1 - Implement occupational therapy program to restore/develop performance of work tasks.
Instruct client in use of: simple adapted methods, equipment, and work simplification techniques. (3)

23A4J0 - Implement occupational therapy program to restore/develop performance of work tasks.
Direct client performance. (3)

23A4K0 - Implement occupational therapy program to restore/develop performance of work tasks.
Observe/report client qualitative and quantitative performance to supervisor. (2)

23B2A0 - Implement occupational therapy program to prevent the deterioration of performance of home care and child care tasks.
Orient client/family to activity. (4)

23B2B0 - Implement occupational therapy program to prevent the deterioration of performance of home care and child care tasks.
Instruct client/family in activity. (2)

23B2F1 - Implement occupational therapy program to prevent the deterioration of performance of home care and child care tasks.
Instruct client in use of: simple adapted methods, equipment, and work simplification techniques. (1)

23B2I1 - Implement occupational therapy program to prevent the deterioration of performance of home care and child care tasks.
Structure/adapt environment to meet client needs: immediate work area/project/activity. (3)

23B2J0 - Implement occupational therapy program to prevent the deterioration of performance of home care and child care tasks.
Direct client performance. (4)

23B2K0 - Implement occupational therapy program to prevent the deterioration of performance of home care and child care tasks.
Observe/report client qualitative and quantitative performance to supervisor. (3)

23B3B0 - Implement occupational therapy program to prevent the deterioration of work interests and performance of work tasks.
Instruct client/family in activity. (1)

23B3F1 - Implement occupational therapy program to prevent the deterioration of work interests and performance of work tasks.
Instruct client in use of: simple adapted methods, equipment, and work simplification techniques. (3)

23B3K0 - Implement occupational therapy program to prevent the deterioration of work interests and performance of work tasks.
Observe/report client qualitative and quantitative performance to supervisor. (3)

PLAY/LEISURE - Evaluation

31A1C0 - Initial Screening
Evaluation of client(s) general needs and suitability for occupational therapy services.
Review written information and identify pertinent details. (1)

31B3C1 - Evaluation of Occupational Performance
Collect data on history, interests, and attitudes through: interview with client/family. (4)

31B3D2 - Collect data on play/leisure time skills through: observation of client activity performance. (3)

PLAY/LEISURE - Planning

32C200 - Discuss preventive occupational therapy program with client/family and significant others. (3)

PLAY/LEISURE - Implementation

33A5B0 - Implement occupational therapy program to explore, identify, and develop play/leisure time interests.
Instruct client/family in activity. (1)

33A5F0 - Implement occupational therapy program to explore, identify, and develop play/leisure time interests.
Observe/report client performance to supervisor. (2)

33A6B0 - Implement occupational therapy program to restore/develop performance of play/leisure time tasks.
Instruct client/family in activity. (1)

33A6I1 - Implement occupational therapy program to restore/develop performance of play/leisure time tasks.
Structure/adapt environment to meet client needs: immediate work area/project/activity. (4)

33A6J0 - Implement occupational therapy program to restore/develop performance of play/leisure time tasks.
Direct client performance. (3)

33A6K0 - Implement occupational therapy program to restore/develop performance of play/leisure time tasks.
Observe/report client qualitative and quantitative performance to supervisor. (2)

33B4A0 - Implement occupational therapy program to prevent the deterioration of play/leisure time interests and performance of play/leisure time tasks.
Orient client/family to activity. (3)

33B4B0 - Implement occupational therapy program to prevent the deterioration of play/leisure time interests and performance of play/leisure time tasks.
Instruct client/family in activity. (2)

PLAY/LEISURE - Implementation (continued)

33B4F1 - Implement occupational therapy program to prevent the deterioration of play/leisure time interests and performance of play/leisure time tasks.
Instruct client in use of: simple adapted methods, equipment, and work simplification techniques. (4)

33B4I1 - Implement occupational therapy program to prevent the deterioration of play/leisure time interests and performance of play/leisure time tasks.
Structure/adapt environment to meet client needs: immediate work area/project/activity. (4)

33B4J0 - Implement occupational therapy program to prevent the deterioration of play/leisure time interests and performance of play/leisure time tasks.
Direct client performance. (4)

33B4K0 - Implement occupational therapy program to prevent the deterioration of play/leisure time interests and performance of play/leisure time tasks.
Observe/report client qualitative and quantitative performance to supervisor. (2)

MOTOR FUNCTIONING - Evaluation

41A1C0 - Initial Screening
Evaluation of client(s) general needs and suitability for occupational therapy services.
Review written information and identify pertinent details. (1)

MOTOR FUNCTIONING - Planning

42C200 - Discuss preventive occupational therapy program plan with client/family and significant others. (3)

MOTOR FUNCTIONING - Implementation

43C1B0 - Implement occupational therapy program to assist in the restoration/development of motor functioning.
Instruct client/family in activity. (2)

43C1G1 - Implement occupational therapy program to assist in the restoration/development of motor functioning.
Instruct client in use of: simple adapted methods, equipment, and work simplification techniques. (4)

43C1H1 - Implement occupational therapy program to assist in the restoration/development of motor functioning.
Structure/adapt environment to meet client needs: immediate work area/project/activity. (3)

43C100 - Implement occupational therapy program to assist in the restoration/development of motor functioning.
Direct client performance. (4)

COGNITIVE FUNCTIONING - Evaluation

61A1C0 - Initial Screening
Evaluation of client(s) general needs and suitability for occupational therapy services.
Review written information and identify pertinent details. (1)

COGNITIVE FUNCTIONING - Planning

62C200 - Discuss preventive occupational therapy program plan with client/family and significant others. (3)

COGNITIVE FUNCTIONING - Implementation

63C3B0 - Implement occupational therapy program to assist in the restoration/development of cognitive functioning.
Instruct client/family in activity. (2)

63C3F0 - Implement occupational therapy program to assist in the restoration/development of cognitive functioning.
Observe/report client performance to supervisor. (3)

PSYCHOLOGICAL FUNCTIONING - Evaluation

71A1C0 - Initial Screening
Evaluation of client(s) general needs and suitability for occupational therapy services.
Review written information and identify pertinent details. (1)

PSYCHOLOGICAL FUNCTIONING - Planning

72C200 - Discuss preventive occupational therapy program plan with client/family and significant others. (3)

PSYCHOLOGICAL FUNCTIONING - Implementation

73C4B0 - Implement occupational therapy program to assist in the restoration/development of psychological functioning.
Instruct client/family in activity. (1)

73C4G0 - Implement occupational therapy program to assist in the restoration/development of psychological functioning.
Observe/report client performance to supervisor. (3)

SOCIAL FUNCTIONING - Evaluation

81A1C0 - Initial Screening
Evaluation of client(s) general needs and suitability for occupational therapy services.
Review written information and identify pertinent details. (1)

SOCIAL FUNCTIONING - Planning

82C200 - Discuss preventive occupational therapy program plan with client/ family and significant others. (3)

SOCIAL FUNCTIONING - Implementation

83C5A0 - Implement occupational therapy program to assist in the restoration/ development of social functioning.
Orient client/family to activity. (4)

83C5B0 - Implement occupational therapy program to assist in the restoration/ development of social functioning.
Instruct client/family in activity. (1)

83C5G0 - Implement occupational therapy program to assist in the restoration/ development of social functioning.
Observe/report client performance to supervisor. (2)

LIFE SPACE - Evaluation

91A1C0 - Initial Screening
Evaluation of client(s) general needs and suitability for occupational therapy services.
Review written information and identify pertinent details. (1)

91D2B1 - Evaluation of Environment
Collect data on environment through: interview with client/family. (1)

LIFE SPACE - Planning

92C200 - Discuss preventive occupational therapy program plan with client/ family and significant others. (3)

INSTRUCTIONS FOR CONSTRUCTING CRITERION-REFERENCED QUESTIONS FOR PROFICIENCY EXAMINATIONS

IN THE INTEREST OF QUALITY

The Professional Examination Service (PES) is a nonprofit independent organization that has, since 1941, been engaged in the development of written examinations for the evaluation of professional competency. These examinations cover a wide range of fields of training and levels of achievement and are used by state, local and federal government agencies, universities, specialty boards, state licensing authorities and professional organizations. Examinations have been prepared in more than 25 health professions.

In order to obtain the material for these tests, PES has asked professional people for assistance in writing questions, or items, as they are called. The many thousands of persons who have responded to this request have made an indispensable contribution to the quality of the program. These instructions have been prepared as a guide to writing the type of questions used by the Professional Examination Service.

INTRODUCTION

These instructions have been prepared to assist you in the construction of questions for a proficiency test in your field. This test has as its purpose determining whether or not an examinee has the necessary skills and knowledge to perform the tasks required by a particular kind of job. An individual's score will be classified as Passing or Failing by comparing it with the scores of those who have demonstrated mastery of a task. The test is not designed to rank examinees in order of their scores. It is intended to determine whether each examinee has or has not the competency to do the work.

Each question therefore must clearly relate to a task performed in a particular job. A list of tasks has been presented to you to assist you in writing the questions. You have been selected to write questions because you have experience related to these tasks. Your experience and knowledge of the tasks in this field should provide the basis for your questions.

In the case of every question, ask yourself:

1) Does this question measure an individual's ability to perform a specific task?

2) Does it measure knowledge essential to performing that task?

You may find it useful to develop questions in pairs - the first question to measure mastery of a skill; the second to measure essential underlying knowledge.

GENERAL DESCRIPTION OF A TEST ITEM

It is generally agreed by the specialists that the most satisfactory form of an objective question is the multiple-choice form. An item of this type begins with an introductory statement which presents the problem or asks the question and is followed by a series of choices, only one of which is correct. The task of the examinee is to select from among these choices the answer which he considers to be correct. The sample items given below demonstrate the versatility of this form of question. They contain four choices, with the correct choice indicated by an asterisk.

A. A diabetic patient in your clinic has become pale, is perspiring, and appears about to faint. As an emergency measure, you should:

1. Put the patient's head between his knees.
* 2. Give the patient a glass of orange juice.
3. Lean the patient back.
4. Keep the patient warm and send for a nurse.

B. The next two questions are based on the picture shown below.

The children in the picture are being treated for a problem with:

1. R-L discrimination.
2. Temporal relationships.
* 3. Directionality.
4. Hyperactive behavior.

The evaluation method most likely to have been used for identifying the children's problem would be the:

1. Marianne Frostig Test of Visual Perception.
2. (ITPA) Illinois Test of Psycho-Linguistic Ability.
* 3. Purdue Perceptual-Motor Survey.
4. Southern California Motor Accuracy Test.

The first question involves knowledge of what action is to be taken in an emergency. The next two questions involve the evaluation of, and selection of appropriate treatment for, a problem in sensory-integrative functioning.

CHARACTERISTICS OF MULTIPLE-CHOICE ITEMS

Multiple-choice items consist of three parts:

1. The introductory statement (premise)
2. The correct choice (answer)
3. The incorrect choices (distractors)

Although it is important to consider each item as an integrated unit, the three parts will be discussed separately for convenience.

1. The Introductory Statement (Premise)

The premise of an item states the problem or asks the question and is the part the examinee reads first. It may be written either as a question or as an incomplete sentence which is completed grammatically by each of the choices. Several points should be noted when writing a premise.

a. *The premise should be a complete expression of the problem.* When the examinee has finished reading the premise, he should know exactly what he is expected to look for among the choices. In all of the sample items above, this is the case. In the following premise, however, this is *not* the case:

> Handedness testing is:

This premise might be reworded to read:

> Handedness testing is indicated for a cerebral palsied child who:

In the second premise, the problem is clearly defined; in the first premise, it is not.

b. *The premise should state the problem in such a way that it is possible to select a single, correct choice from among those given.* Frequently the criticism is made that an item does not include the correct answer or does not include all of the possible correct answers. A premise such as "The cause of arthritis is:" would be subject to such a criticism. This problem is too complex to be set up as so simple a task. There are several ways of avoiding this difficulty, however, such as:

> One of the characteristics of rheumatoid arthritis, after the disease is well established, is:

c. *Premises dealing with controversial problems should explicitly recognize the existence of the controversy.* It is sometimes charged that objective items cannot be developed that will sample an examinee's knowledge in areas in which there is divergent opinion. It is certainly true that items intended

to sample knowledge of a controversial area cannot be constructed so simply as if there were no controversy. If, however, an objective examination is to assess the examinees properly in accordance with their abilities, the examination must attempt to sample the examinees' knowledge of some controversial areas, since it is likely that the examinee who knows both sides of a controversy is better qualified than one who knows only one side or neither.

The following is an example of a poor premise in a controversial field:

> Prepaid medical care plans are superior to the traditional methods of administering health because:

A better way of phrasing this premise would be:

> Advocates of prepaid medical care plans advance as one of the arguments in their favor the fact that:

In other words, a premise which deals with controversial material can be rendered unobjectionable by specifying the group of individuals to whom the answer is acceptable, or by carefully defining the circumstances under which the given answer will be correct.

d. *Premises dealing with local issues or developing trends are generally not desirable because of their regional or short-term applicability.* Exceptions to this rule exist where knowledge of such material is required for a specified group of examinees or where such issues have proved to have wider implications.

e. *Negative premises are not desirable, but occasionally may be used effectively.* Negative items are often inconsequential and examinees report that they find them confusing. Occasionally, however, a negative premise can be used if the answer is an expression of some unacceptable procedure or some fallacy which it is important for the examinee to recognize as such. An example of an acceptable negative premise is:

> When treating a patient suffering from atrophic arthritis, grading to increase joint motion is <u>contraindicated</u> in the presence of:

2. <u>The Correct Choice (Answer)</u>

The correct choice is, in effect, the reason that the constructor thought the item significant enough to write in the first place. It reveals the examinee's mastery of a task or of the knowledge underlying the task.

a. *The relation of the correct choice to the premise.* The correct choice should always be formulated so that it is logically and

grammatically related to the problem that the premise has presented to the examinee; otherwise, qualified examinees, finding the correct choice logically or grammatically unsatisfactory, may not select it as the answer. One technique which helps in the achievement of this close relationship is the practice of constructing the correct choice immediately after completing the premise.

b. *The correct choice should be clearly and unambiguously stated.* It should be long enough to formulate adequately the expected response. On the other hand, it should not be unnecessarily long. Item constructors sometimes tend to protect the correct choice by adding many qualifying phrases and clauses while they fail to develop their incorrect choices to the same complexity and length. Examinees have been known to obtain good scores merely by marking as correct the longest of the possible choices. Frequently some of the ideas that the item constructor considers necessary for the proper protection of the correct choice can be put in the premise. This not only shortens the item as a whole, but also serves to clarify the problem to the examinees.

c. *Use of words which "give away" the answer.* The item constructor should consciously strive to avoid items in which the differentiation between the answer and the incorrect choices can be made solely on the basis that the answer contains many professionally "approved" words or phrases, whereas the incorrect choices not only contain none of these but contain many professionally "unapproved" words. For example, in the helping professions, any choice which includes the phrase "explore with the client," or the like, is almost certain to be the answer. The correct choice should be expressed in the same style as the incorrect choices. The item as a whole should be written so that no one is able to ignore the premise and still select the expected answer by the way it is worded.

3. The Incorrect Choices (Distractors)

The effectiveness of an item depends to a very large extent upon the strength of the three incorrect choices. The item cannot discriminate between good and poor examinees unless the incorrect choices are so formulated that they will be attractive to unqualified examinees and "pull" such examinees into selecting them as the answer, and unless at the same time they are unattractive to qualified examinees. It is important, therefore, that every bit as much care go into the development of the incorrect choices as goes into the preparation of the premise and the answer.

a. *The incorrect choices should be absolutely incorrect.* They should not be slightly less accurate than the answer. Items in which all the choices are simply gradations of the truth have generally been found to be undiscriminating and also tend to irritate the examinees. The only situation in which it is permissible to have four choices of varying degrees of excellence is when the premise clearly asks the examinees which is the best

of the alternatives listed. In such items, however, the answer must be one which would be generally accepted as being the "best" by persons most competent to judge.

b. *The incorrect choices should sound plausible.* Not only must the incorrect choices be absolutely wrong, they must at the same time sound plausible. An incorrect choice so patently absurd in relation to the premise that no examinee ever considers it to be the answer is useless from an examination point of view. Plausible but wrong choices can be developed by incorporating into them the kinds of incorrect concepts, illogical conclusions, and erroneous ideas that unqualified people tend, in general, to hold.

c. *Efforts to "trick" examinees.* The Professional Examination Service conscientiously tries to avoid any "trick" features in its items. All too often an item which deliberately sets out to trick examinees will trick not only the unqualified people but the qualified people as well.

d. *The incorrect choices should parallel the correct choice in all essential details.* The most apparent feature in which the incorrect choices must parallel the correct choice is, as has been mentioned above, length. If the answer is short, the distractors must tend to be short; if the answer is long, the distractors must tend to be long.

It is just as important for the incorrect choices to be logically and grammatically related to the premise as it is for the answer. If this is not the case, the examinee will be able to reject them, not on the basis of his knowledge but simply by perceiving that they have no connection with the problem as it is stated in the premise.

The incorrect choices must make use of the same kind of language that is used in the correct choice. In an item in which the answer is presented in scientific or technical language, the incorrect choices must also be presented in such language.

It is the policy of the Professional Examination Service not to accept items containing "none of the above" or "all of the above" as the correct choice or a distractor.

CONSTRUCTION OF VISUAL ITEMS

Wherever the content of a field makes particular use of visually presented material, it is desirable to include items that test knowledge and skill in this aspect of the content. The same general rules apply to the construction of items involving visual materials as those involving verbal materials. Illustrations of the use of visual items are suggested below:

1. A graph, diagram, chart or picture may be presented, and questions asked about its interpretation, content, or use.

2. A question might be asked in which the four options are visually presented, such as "Which one of the following illustrates. . .?"

3. An illustration might be presented, and questions asked to determine if the examinee recognizes the illustrated material, can identify the location of a specified part, or make a judgment based on the presentation (e.g., slides, color pictures, videotapes, movies, etc.).

4. A three-dimensional model might constitute the basis for similar questions, and additionally could be used in circumstances where the two-dimensional illustration would be insufficient.

While innovative approaches involving the use of audiovisual materials are encouraged, the item constructor should recognize that the use of items involving visual content is time-consuming, in relation to the total test content, and costly, in terms of production. Nevertheless, certain content can only be tested in this way, and other content can best be tested in this way even though the material may be adaptable to other methods of treatment.

FORMAT AND REFERENCE

In order to guard the confidential nature of the items, it is essential that the item constructor destroy all copies and rough drafts of the items he prepares. It is requested that all items be submitted on standard 8 1/2" x 11" paper in *DUPLICATE*, and that these rules be followed:

1. Send both copies to PES.
2. Leave at least two inches at the side for binding.
3. Set up the premise.
4. Set up the correct choice immediately below the premise.
5. Set up the three incorrect choices below the correct choice. (The four choices are "randomized" in the office.)

Only one item should be placed on a sheet. If more space is needed than is available on one side of the sheet, a second sheet should be used.

The general form of the item will look like this:

Premise.....: (?)

1. correct choice
2. incorrect choice
3. incorrect choice
4. incorrect choice

Name of Constructor
Complete Source
(as shown in sample on page 8)
Appropriate Coding

At the end of each item, the constructor should write his name and the source of the item, using one of the formats shown below:

SOURCE: *Book*

Author's surname and initials _____
Title of book _____
Edition _____ Place of publication _____
Name of publisher _____
Year of publication _____ Volume _____ Page _____

SOURCE: *Periodical*

Author's surname and initials _____
Title of article _____
Name of periodical _____
Volume _____ Page _____ Year _____
Month and day of the month if periodical is published more often than once a month _____

The source of the item is important in editing the item and in providing a legal defense if the item should ever be contested by an examinee. It may not, of course, be possible to give a reference for an item developed on the basis of experience and judgment. In that case, the constructor should so specify; e.g., "Common Knowledge," "Experience," etc.

Items should be mailed to:

Professional Examination Service
475 Riverside Drive
New York, New York 10027

OCCUPATIONAL THERAPY

INSTRUCTIONS FOR ITEM WRITERS

You have agreed to write questions for either the entry level therapist or entry level assistant, in a particular task category (e.g., Self Care). You have also indicated a general Clinical Interest (e.g., Physical Disabilities). In accordance with your choice, a packet of material is herewith included. This packet includes the tasks and types of clients that you are being asked to write questions about.

Specifically the packet includes:

TASK FORM

Each FORM contains an entry level TASK taken from an inventory developed by AOTA. You are receiving several TASKS, each of them considered critical for the entry level position. There are a variety of inherent knowledges and skills associated with each TASK, e.g., selecting and planning treatment has a number of skills and areas of knowledge that one could write questions about.

TYPES OF CLIENTS

A sheet listing the types of clients which the AOTA Resource Panel has decided most critical for an entry level position. You may select any of these client types to include in your question; however, it would be helpful if you select client types which relate to the general Clinical Interest you have indicated. It sometimes happens that a question does not relate to any particular type of client (Example 3). This is acceptable.

TABLE OF CONTENTS

This sheet indicates the breakdown of the entry level Occupational Therapy tasks in the Task Inventory developed by AOTA. On each TASK FORM, the CATEGORY and SECTION heading relate to this TABLE OF CONTENTS. Thus, by referring to the TABLE OF CONTENTS, you can get a rough idea of the general context of the TASK you are being asked to write questions about.

EXPLANATION OF SELECTED TERMS

A definition of frequently-used terms, to ensure uniformity of meaning.

You are being asked to write each question on the appropriate TASK FORM, in the area marked PREMISE AND CHOICES:

-- If there is not sufficient room on the form, please add a sheet of plain paper.

-- If you wish to write several questions to a particular TASK, please duplicate the FORM and then write one question on each FORM.

-- The Source data and your name must also be included (Please see INSTRUCTIONS FOR CONSTRUCTING CRITERION-REFERENCED QUESTIONS).

Following are several examples of Questions. The first example is shown on a TASK FORM.

1. EXAMPLE OF QUESTION ON A TASK FORM

CATEGORY: SENSORY-INTEGRATIVE FUNCTIONING TASK NO. 52A352

SECTION: Planning LEVEL Therapist - L4

MAJOR SUBHEADING: Goal Setting

TASK: Formulate and establish priority occupational therapy goals (in collaboration with client(s)) to assist in the restoration and/or development of sensory-integrative functioning.

PREMISE AND CHOICES. [If space is insufficient, please continue on a plain sheet of paper.]

Jerry is a 9-year old boy who has been referred to you for evaluation and treatment because of his inability to read and write at the level expected for his age group. Your testing reveals that he has very poor spatial relationships and motor planning abilities.

A. Your initial treatment plan would emphasize:

1. spatial relationships.
2. motor planning.
3. penmanship.
4. figure-ground exercises.

Jane Smith, O.T.R.
NAME

SOURCE:

Mosey, A. C.
Three Frames of Reference for Mental Health.
Thorofare, New Jersey.
Charles B. Slack, Inc.
1970. pages 148-171.

DO NOT WRITE BELOW THIS LINE.

	Accession #							Task							Disability						Criticality				Level	
CODE	X														D						C				L	
COL.	3	4	5	6	7			19	20	21	22	23	24		27	28	29	30	31		69	70			73	74

2. EXAMPLE USING ILLUSTRATIONS (Remember - one question to a page)

The next two questions are based on the pictures shown below.

A. All the children in these pictures have difficulty with:

1. Verticality.
2. Equilibrium reactions.
3. Standing balance.
4. Body-image.

B. The proper sequence of use for the equipment shown above would be:

1. A, C, B.
2. B, C, A.
3. A, B, C.
4. C, A, B.

3. EXAMPLE WHICH DOES NOT RELATE TO A TYPE OF CLIENT

When interviewing a client in regard to his work history, interests, and attitudes, it is best to:

1. Have a list of prepared questions ready.
2. Ask whatever questions come to mind.
3. Ask the client to talk generally about work.
4. Bring up the question of work casually and wait to see what the client has to say.

As you can see, from the above examples, the questions are essentially task oriented. They are all questions that an entry level therapist (or assistant) should know. This does not mean that they will be easy to write, however. It takes time and thought. As a sort of checklist to help guide you, the following points are offered.

Have you:

--thought about what an entry level person should know and do?

--oriented the questions around the tasks, knowledge and skills, abilities and attitudes necessary to perform the tasks?

--paid attention to the three distractors, as well as to the correct choice? (Distractors are the heart of a question and should be things an entry level person might really think of doing, instead of the correct thing.)

--made your questions independent of each other, even if several relate to a picture or chart (it is difficult to score branching questions, since getting the second question correct depends on getting the first question correct).

--written each question, with appropriate references for the answer, on a separate sheet of paper (see Instructions for Constructing Criterion-Referenced Questions).

After you have written your questions, we ask that you fill in the BACKGROUND DATA SHEET for ITEM WRITERS and enclose it, along with your questions, in the return envelope provided for this purpose. Any comments you may wish to make, about the usefulness of the instructions, or any other part of this procedure, would be welcome.

PLEASE REMEMBER TO WRITE AT LEAST TEN QUESTIONS.

THANK YOU.

NOTE ON VISUALS: If you wish to use visuals, please try to send black and white or color prints, slides, or clean line drawings.

Entry-Level

Occupational Therapy Tasks *

Table of Contents

I. Evaluation Tasks

A. Initial Screening

B. Evaluation of Occupational Performance:
1. self care performance
2. work performance
3. play/leisure time performance
4. summary of occupational performance

C. Evaluation of Performance Components:
1. motor functioning
2. sensory-integrative functioning
3. cognitive functioning
4. psychological functioning
5. social functioning

D. Evaluation of Life Space:
1. cultural background and value orientations
2. environment

E. Re-evaluation

II. Program Planning Tasks

A. Goal Setting - restoration/development program
prevention program

B. Select and Plan Methodology
- restoration/development program
- prevention program

C. Discuss Occupational Therapy Program Plan
- restoration/development program

III. Program Implementation Tasks

A. Implement Occupational Therapy Program to Restore/Develop Occupational Performance
1. self care
2. work - home care and child care
3. work - exploration of interests
4. work
5. play/leisure - explore interests
6. play/leisure

B. Implement Occupational Therapy Program to Prevent Deterioration of Occupational Performance
1. self care
2. work - home care and child care
3. work
4. play/leisure

C. Implement Occupational Therapy Program to Assist in Restoration/Development of Performance Components
1. motor functioning
2. sensory-integrative functioning
3. cognitive functioning
4. psychological functioning
5. social functioning

D. Re-evaluate and Plan Program

E. Terminate

IV. Program Support Tasks

* This Table of Contents is taken from the AOTA Inventory.

2.0 *TYPES OF CLIENTS*

2.1 DEVELOPMENTAL AND LEARNING IMPAIRMENTS

2.1.1 Developmental disabilities and learning disorders
2.1.2 Mental retardation

2.2 PSYCHIATRIC AND/OR SOCIAL IMPAIRMENTS

2.2.1 Psychoses
2.2.2 Neuroses
2.2.3 Drug Addiction

2.3 PHYSICAL IMPAIRMENTS

2.3.1 Hemiplegia
2.3.2 Quadriplegia
2.3.3 Paraplegia
2.3.4 Cerebral palsy
2.3.5 Arthritis
2.3.6 Fractures
2.3.7 Amputations
2.3.8 Peripheral nerve injuries
2.3.9 Multiple sclerosis
2.3.10 Burns
2.3.11 Cardiac conditions

2.4 HIGH-RISK FACTORS

2.4.1 Persons over 70 years of age
2.4.2 Cardio-vascular impairments/hypertension
2.4.3 Multiple problem family
(persons living in or coming from high-risk environments such as poverty areas and families with a history of mental illness, alcoholism, drug addiction, child abuse, etc.)

4.0 *KNOWLEDGE AND SKILL REQUIREMENTS*
ENTRY LEVEL THERAPIST

In addition to all of the knowledge and skill requirements implicit in the Task Inventory, the following are also considered essential:

4.1 The etiology of the client's impairment or condition

4.2 The primary pathological process

4.3 The residual effects of the client's impairment or condition and the expected functional loss in relation to motor, sensory-integrative, cognitive, psychological, and social functioning

4.4 The prognosis of the impairment or condition

4.5 The medical and safety precautions which must be observed

4.6 The safety precautions to be observed in the selection and performance of activities used for treatment

3.0 *KNOWLEDGE AND SKILL REQUIREMENTS*
ENTRY LEVEL ASSISTANT

In addition to all of the knowledge and skill requirements implicit in the Task Inventory, the following are also considered essential:

3.1 The residual effects of the client's condition or impairment and the expected functioning loss in relation to motor, cognitive, psychological and social functioning

3.2 The medical and safety precautions which must be observed

3.3 The safety precautions to be observed in the selection and performance of activities used for treatment

EXPLANATION OF SELECTED TERMS

1. Occupation: the goal directed use of a person's time, energy, interest and attention.

2. Client - Client(s): the person or persons receiving occupational therapy services. These services may be provided on an individual and/or group basis.

3. Family: the persons who are related to the client; including spouses, parents, children, grandparents, aunts, uncles, nieces and nephews or persons in a family-surrogate role.

4. Significant Others: refers to persons, excluding the individual's family, who have an important relationship to the individual. This could include the employer, teacher, nurse, attendant, physical therapist, social worker, physician, psychologist, therapeutic recreation specialist, vocational rehabilitation counselor, audiologist, speech pathologist, home economist, and nutritionist.

5. Occupational Performance: the individual's ability to accomplish the tasks required by his role and related to his developmental stage. Roles include those of a pre-schooler, student, homemaker, employee, and retired worker. Occupational performance includes self care, work, and play/leisure time performance.

   Occupational performance requires learning and practice experiences with the role and developmental stage-specific tasks, and the utilization of all performance components. Deficits in task learning experiences, performance components, and/or life space, may result in limitations in occupational performance.

   When occupational therapy programs are designed and implemented to prevent the deterioration of occupational performance (self care, work and play/leisure time performance), the assumption is that these comprehensive programs also help to prevent the deterioration of the performance components (motor, sensory-integrative, cognitive, psychological and social functioning).

6. Self Care Performance: includes abilities and limitations in the performance of feeding, dressing, hygiene/grooming, transfer, and object manipulation activities.

   a. transfer activities: includes abilities and limitations getting in and out of bed, chair, wheelchair, car and bus.

   b. object manipulation activities: includes abilities and limitations in handling common objects such as telephone, light switches, keys, doorknobs, money, etc.

7. Work Performance: includes performance of student, homemaker, employee work activities.

   a. work skills: includes abilities and limitations in work habits, workmanship, and actual work skills related to student, homemaker and employee tasks.

8. Play/Leisure Time Performance: includes abilities and limitations in the performance of play and leisure time activities, such as: games, sports, hobbies, and social activities.

9. Life Style: the balance of self care, work, and play/leisure time activities which promote optimal biological, cognitive, psychological and social functioning and health.

10. Performance Components: the learned and developmental patterns of behavior which are the substructure and foundation of the individual's occupational performance.

    The performance components include:

    a. motor functioning
    b. sensory-integrative functioning
    c. cognitive functioning
    d. psychological functioning
    e. social functioning

11. Motor Functioning: includes abilities and limitations in range of motion, gross muscle strength, muscle tone, endurance, functional use, and gross and fine motor skills.

12. Sensory-Integrative Functioning: includes abilities and limitations in body schema, posture and body integration, visual-spatial relationships, sensory-motor integration, reflex and sensory status.

13. Cognitive Functioning: includes abilities and limitations in comprehension, written and verbal communication, concentration, problem solving, time management, conceptualization, and integration of learning.

14. Psychological Functioning: includes abilities and limitations in emotional states and feelings, coping behaviors and defenses, self identity and self concept.

    a. coping behaviors: includes abilities and limitations in ability to subliminate drives, find sources of need gratification, tolerate frustration and anxiety, experience gratification, and control impulses.

    b. self identity and self concept: includes abilities and limitations in perceiving self-needs, feelings, conflicts, defenses; differentiating self needs and expectations from those of others; identifying areas of self-competence and limitations; accepting responsibility for self; coping with success and failure; perceiving sexuality of self; giving and receiving sexual gratification; having self respect; having appropriate body image; viewing self as being able to influence events.

15. Social Functioning: includes dyadic and group interaction.

    a. dyadic interaction: includes abilities and limitations in relationships to peers, subordinates, and authority figures; demonstrating trust, respect, and warmth; perceiving and responding to needs and feelings of others; engaging in and sustaining interdependent relationships; communicating feelings.

    b. group interaction: includes abilities and limitations in performing tasks in the presence of others; sharing tasks; cooperating and competing with others; fulfilling a variety of group membership roles; exercising leadership skills; perceiving and responding to needs of group members.

16. Life Space: includes the individual's cultural background and human and non-human environment.

17. Pre-Schooler: infant to age six years.

18. Homemaker: man or woman who participates in the tasks and activities of homemaking; meal planning and preparation, shopping, home maintenance, laundry, financial management, home repair, and child care.

19. Collect Data: includes explanation of the procedure to the client, as well as the actual collection of the data, and the recording of the results.

20. Record/Copy the Data and Interpretation into Records: Although this task is only mentioned on page one of the task inventory, it is always considered to be an important task in each of the evaluation, program planning, and implementation sections. It was felt that it was not necessary to repeat this task statement for each of the sections.

21. Restoration/Development: refers to helping the client attain as much function as possible.

22. Prevention of Deterioration: refers to helping the client maintain as much function as possible.

BACKGROUND DATA

Item Writers

_____ Age

_____ Sex

Year of Certification

_____ COTA

_____ OTR

NAME _____

ADDRESS _____

_____

_____

I. GEOGRAPHICAL DATA

The three questions below relate to the following groups of states:

1. Connecticut
   Maine
   Massachusetts
   New Hampshire
   Rhode Island
   Vermont

2. New Jersey
   New York
   Puerto Rico
   Virgin Islands

3. Delaware
   District of Columbia
   Maryland
   Pennsylvania
   Virginia
   West Virginia

4. Alabama
   Florida
   Georgia
   Kentucky
   Mississippi
   North Carolina
   South Carolina
   Tennessee

5. Illinois
   Indiana
   Michigan
   Minnesota
   Ohio
   Wisconsin

6. Arkansas
   Louisiana
   New Mexico
   Oklahoma
   Texas

7. Iowa
   Kansas
   Missouri
   Nebraska

8. Colorado
   Montana
   North Dakota
   South Dakota
   Utah
   Wyoming

9. Arizona
   California
   Hawaii
   Nevada

10. Alaska
    Idaho
    Oregon
    Washington

11. Countries other than the U.S.A.

Please indicate the number of the group which includes the state in which you:

_____ A. Presently Work

_____ B. Have obtained most of your occupational therapy work experience

_____ C. Have obtained most of your occupational therapy schooling

II. EDUCATIONAL HISTORY

_____ Highest level of education achieved

1. Associate Degree
2. Bachelor's Degree
3. Certificate Degree
4. Master's Degree
5. Doctorate
6. Other (please specify) _____

III. WORK EXPERIENCE IN OCCUPATIONAL THERAPY

_____ A. Years of Experience

1. less than one year
2. 1-3 years
3. 4-6 years
4. 7-9 years
5. 10 or more years

_____ B. How would you describe your work experience?

1. Primarily academic
2. Primarily clinical
3. Combination of academic and clinical
4. Other (please specify) _____

_____ C. What is your current employment status?

1. Full time
3. Retired
4. Not Employed
5. Other (please specify) _____

REVIEW OF OCCUPATIONAL THERAPY QUESTIONS

The questions (items) in this booklet are being sent to you for your review because of your knowledge of, and experience in, the field with which they are concerned. These particular items were compiled in random order, and do not constitute a complete examination, or any part of an examination. If approved, the questions will appear in various forms of the Occupational Therapist or Therapist's Assistant examinations, either as a block or separately, as our subject-matter consultants recommend. Where questions contain visual information, the type of duplication used for the copy contained in this booklet will not be the final form of duplication for the examination.

The TASK statements on each page have been taken from the AOTA Inventory. Each item is intended to relate to an <u>essential</u> aspect of the task described on that page.

A multiple-choice item is composed of a premise, which states the problem, and four choices, one of which is the answer. The premise may be in the form of an incomplete statement, in which case each choice completes the thought; or it may be a question. It is important that only <u>one</u> of the four choices be unequivocally correct, and be reasonably defensible in case of candidate appeals or court action. The three <u>wrong</u> choices should be inferior answers.

These items have been given a preliminary review by Occupational Therapy consultants and our staff editors. We should like to have your opinion as to the accuracy, relevance to the task statement, and level of difficulty of each item. Space is provided in the lower part of the page for information which we hope you will give us. Please follow this procedure:

1. Read each item carefully; then write the number of the correct choice in the box marked ANSWER. After you have completed the items, refer to the ANSWER KEY (in the envelope in the back of the folder) to see whether you selected the choices we had intended to be correct. If any of your answers differ from those indicated on the KEY, please tell us <u>why</u> you disagree. Your comments will lead to the discovery of poor items, and this is the major purpose of the item review.

2. Read each TASK statement and item again, this time as a pair.

3. Check the word APPROVED if you feel that the item is satisfactory in all respects and proceed directly to number 7 below. If the item is not satisfactory, proceed to number 4.

4. Check the phrase NEEDS SUBJECT-MATTER EDITING if you feel that the item is too controversial, theoretical, or provincial, or needs work in the premise or one of the choices (other than grammatical). Please give us the reasons for your opinion.

5. Check phrase NEEDS GRAMMATICAL EDITING if you discover an error or an inconsistency in form.

6. Check the phrase IMPROPER FIELD if you think that the item deals with material irrelevant or unimportant to the task.

7. Answer the two questions in the COMMENTS section. It is important for us to know if: the multiple choice item relates to the essence of the task; entry level people need to know the information contained in the item.

8. Circle the level of difficulty for an entry level person: VD - Very difficult; D - Difficult; AD - Average difficulty; E - Easy; VE - Very Easy.

If you have specific suggestions for improving an item, please write them on the bottom of the page. If there is not enough room for your comment, add an additional page.

The Professional Examination Service is very much indebted to you for your help in this important step in the preparation of examination material.

MAY WE REMIND YOU OF THE EXTREMELY CONFIDENTIAL NATURE OF THIS MATERIAL

THESE QUESTIONS

were written for the Professional Examination Service by active professional workers in Occupational Therapy;

have been edited by test technicians and revised by Occupational Therapy consultants on the Professional Examination Service staff;

are being reviewed by three authorities of which you are one;

will be reviewed and edited again by the staff of the Professional Examination Service on the basis of your recommendations and those of the other two reviewers (some will be discarded);

will become a part of a very large file of questions in Occupational Therapy.

These Questions are NOT a complete examination.
These Questions will NOT be used as a group in any examination.
These Questions are NOT a representative sampling of the content of the file in Occupational Therapy, or of any part of that file.

3/74

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THERAPIST LEVEL

FINAL FORMS - MEAN DIFFICULTY

Subareas	Form 1	Form 2	Form 3
SELF-CARE			
total of item difficulties	2565.6	2703.9	2680.4
# of items used for calculation/total	32/33	33/33	33/33
MEAN DIFFICULTY	80.1750	81.9363	81.2242
WORK			
total of item difficulties	2037.7	2007.4	2048.6
# of items used for calculation/total	27/33	27/33	27/33
MEAN DIFFICULTY	75.4703	74.3481	75.8740
PLAY/LEISURE			
total of item difficulties	1356.2	1198.6	1186.9
# of items used for calculation/total	17/20	15/20	16/20
MEAN DIFFICULTY	79.7764	79.9066	74.1812
MOTOR FUNCTIONING			
total of item difficulties	3125.3	3593.4	3514.9
# of items used for calculation/total	42/50	46/50	46/51
MEAN DIFFICULTY	74.4119	78.1173	76.4108
SENSORY-INTEGRATIVE FUNCTIONING			
total of item difficulties	2565.6	2622.7	2545.7
# of items used for calculation/total	31/32	32/32	31/32
MEAN DIFFICULTY	82.761	81.9593	82.1193
COGNITIVE FUNCTIONING			
total of item difficulties	1262.3	1285.5	1308.8
# of items used for calculation/total	16/20	16/20	17/20
MEAN DIFFICULTY	78.8937	80.3437	76.9882
PSYCHOLOGICAL FUNCTIONING			
total of item difficulties	2075.3	2034.1	2099.9
# of items used for calculation/total	27/33	26/33	27/33
MEAN DIFFICULTY	76.8629	78.2346	77.7740
SOCIAL FUNCTIONING			
total of item difficulties	1102.9	947.6	1000.4
# of items used for calculation/total	15/20	13/20	13/20
MEAN DIFFICULTY	73.5266	72.8923	76.9538
LIFE SPACE			
total of item difficulties	427.2	434.0	415.8
# of items used for calculation/total	5/9	5/9	5/9
MEAN DIFFICULTY	85.4400	86.8000	83.1600
TOTAL DIFFICULTY FOR FORM	16518.10	16827.2	16801.4
TOTAL # OF ITEMS USED FOR CALCULATION/TOTAL # OF ITEMS IN FORM	212/250	213/250	215/250
MEAN DIFFICULTY FOR FORM	77.9155	79.0009	78.146

ASSISTANT LEVEL

FINAL FORMS - MEAN DIFFICULTY

Subareas	Form 1	Form 2	Form 3
SELF-CARE			
total of item difficulties	5184.9	5032.8	4708.6
# of items used for calculation/total	67/73	64/73	61/73
MEAN DIFFICULTY	77.3865	78.6375	77.1901
WORK			
total of item difficulties	3364.4	3595.9	3384.8
# of items used for calculation/total	45/74	48/74	46/74
MEAN DIFFICULTY	74.7644	74.9145	73.5826
PLAY/LEISURE			
total of item difficulties	3046.0	3113.4	2929.5
# of items used for calculation/total	39/49	40/49	38/48
MEAN DIFFICULTY	78.1025	77.8350	77.0921
MOTOR FUNCTIONING			
total of item difficulties	814.6	886.1	944.4
# of items used for calculation/total	12/13	13/13	11/13
MEAN DIFFICULTY	67.8833	68.16	67.67
COGNITIVE FUNCTIONING			
total of item difficulties	129.8	250.7	271.5
# of items used for calculation/total	2/11	4/11	4/12
MEAN DIFFICULTY	64.9	62.675	67.8750
PSYCHOLOGICAL FUNCTIONING			
total of item difficulties	775.7	828.5	794.0
# of items used for calculation/total	11/11	11/11	11/11
MEAN DIFFICULTY	70.5181	75.3181	72.1818
SOCIAL FUNCTIONING			
total of item difficulties	755.3	871.5	880.9
# of items used for calculation/total	10/13	11/13	12/13
MEAN DIFFICULTY	75.5300	79.2272	73.4083
LIFE SPACE			
total of item difficulties	421.4	452.8	452.0
# of items used for calculation/total	6/6	6/6	6/6
MEAN DIFFICULTY	70.2333	75.4666	75.3333
TOTAL DIFFICULTY FOR FORM	14492.1	15031.7	14365.7
TOTAL # OF ITEMS USED FOR CALCULATION/TOTAL # OF ITEMS IN FORM	192/250	197/250	189/250
MEAN DIFFICULTY FOR FORM	75.4796	76.3030	76.0089

Examination Construction, Revision and Utilization

1. In order to maintain the basic standards of competency and quality of care in the occupational therapy field, the Project Staff recommends that representatives of the American Occupational Therapy Association:

   a. be consulted and participate in the writing, selection, and weighting of all examination questions

   b. assist in the norming and in the determination of the validity and reliability of the examinations

   c. assist in the determination of cut-off scores

   d. assist in the development of all regulations governing the administration of the examination and related credentialing policies and procedures

2. In addition, the Project Staff recommends that:

   a. all test items be subject to continuing evaluation and revision and that

   b. representatives of the American Occupational Therapy Association participate in this process

3. The Project Staff recognizes AOTA's and HEW's commitment to quality health care and shares with them a determination to ensure such care. Therefore, in order to sustain this commitment, we recommend that AOTA and HEW, individually and/or collectively, actively oppose any efforts by any organization, agency, and facility to lower the professional association's (AOTA) standards of practice. The Project Staff recommends that any agency or organization that uses the examinations be required to observe all administrative regulations and credentialing policies and procedures established pursuant to recommendation 1.d above.

Board of Examiners

4. The Project Staff recommends that a Board of Examiners, including registered occupational therapists and certified occupational therapy assistants selected from a list of candidates prepared by the American Occupational Therapy Association, be established to:

   a. determine whether or not persons wishing to sit for the proficiency examinations meet such eligibility criteria as may be established, and

   b. make specific rules and regulations governing the administration of the examinations and the use of the results thereof, and

c. determine whether applicants have successfully fulfilled the six-month work evaluation requirements described in recommendation #9.

Eligibility to Sit for the Examinations

5. The Project Staff recommends that in order to be eligible to sit for the level II Examination, an individual must:

a. have at least one year of satisfactory work experience delivering direct client services in the fields of health or human welfare

6. The Project Staff recommends that in order to be eligible to sit for the level IV examination, an individual must:

a. have at least one year of formal educational preparation beyond high school, or its equivalent; and a minimum of two years of satisfactory work experience in the delivery of direct client services in the fields of health or human welfare;

or

b. be a certified occupational therapy assistant with a minimum of two years of satisfactory work experience as a certified occupational therapy assistant;

or

c. be credentialed as level II occupational therapy assistant with a minimum of two years of satisfactory work experience as a level II occupational therapy assistant

7. In addition, Project Staff recommends that an eligible individual may sit for the examination as many times as a different form of the examination is available, a different form being defined as one in which at least 60% of the items are different.

8. The Project Staff also recommends that

a. the entry level proficiency examinations for occupational therapy personnel be evaluated to determine their validity and reliability as a measure and predictor of entry-level job competency;

and

b. if the entry-level proficiency examinations for occupational therapy personnel are determined to be an adequate measure and predictor of entry-level competency, that the AOTA re-evaluate the eligibility criteria and make appropriate changes.

Credentialing Policies and Procedures

9. In light of AOTA's stated position that "the profession views proficiency examinations as tools for recognition/entry acceptable only when accompanied by adequate amounts of relevant experience which the profession itself would judge",[1] the Project Staff recommends that:

a. if the AOTA decides that the proficiency examinations for occupational therapy personnel adequately measure and predict entry-level competency, that the Association endorse the use of these examinations as acceptable mechanisms for assessing an individual's ability to provide occupational therapy services when used in conjunction with carefully designed and supervised occupational therapy work experiences of at least six consecutive months duration at the level for which the credential is being sought; and that

b. the work experience be conducted under the direct personal supervision of an occupational therapist registered, recognized by the AOTA as a qualified clinical supervisor; and that

c. the entry-level individual satisfactorily complete this supervised occupational therapy work experience, and be evaluated on the AOTA student evaluation form, and the determination of satisfactory completion of this six-month work experience be in accordance with the established AOTA policies and procedures; and that

d. the individual's previous work experiences be considered as fulfillment of the six-month work experience requirement as long as the above criteria 9a., 9b. and 9c. are satisfactorily met; and

e. if the individual satisfactorily passes the level II examination and work experience evaluation, he be credentialed by AOTA as a certified occupational therapy assistant; and that

f. if the individual satisfactorily passes the level IV occupational therapy examination and work experience evaluation, he be credentialed by AOTA as an occupational therapist, registered.

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1. AOTA Statement on Proficiency and Equivalency Matters, February, 1972

10. In addition, the Project Staff recommends that:

    a. the AOTA determine if the entry-level IV proficiency examination would provide an acceptable substitute to the current AOTA registration examination.

Implementation of Recommendations

11. In conclusion, the Project Staff recommends that all of the above recommendations be implemented on a pilot basis and that the American Occupational Therapy Association make such changes as may be needed to accommodate findings and conclusions derived from these experiments.